

Repair Manual Audi TT 2015 ➤ Audi TT Roadster 2015 ➤

Communication

Edition 08.2022



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List of Workshop Manual Repair Groups

Repair Group

00 - General, Technical Data

91 - Communication



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Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

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Repair Information

(Edition 08.2022)

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⇒ B1.2 us Wires Repair Information", page 1

1.1 General Repair Information

Wiring Harnesses and Connectors, Repairing. Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97; Wiring Harness and Connector Repair; Wiring Harness, Repairing and ⇒ Electrical Equipment General Information; Rep. Gr. 97; Wiring Harness and Connector Repair; Connector Housing and Connectors, Repairing.

Connector Housings, Releasing and Disassembling. Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97; Wiring Harness and Connectors, Repairing; Connector Housings, Releasing and Disassembling

Repair the antenna wires. Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97; Wiring Harness and Connectors, Repairing; Antenna Wires, Repairing.

Fiber-Optic Cables, Repairing. Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97; Wiring Harness and Connectors, Repairing; Fiber-Optic Cables, Repairing.

Vehicle Diagnostic Testers. Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97; Vehicle Diagnostic Testers.

1.2 **CAN Bus Wires Repair Information**

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91 – Communication

1 Infotainment System

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- ⇒ L1.2 ocation Overview Infotainment System", page 6
- ⇒ S1.3 ystem Display, Removing and Installing", page 7
- ⇒ I1.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8
- ⇒ M1.5 ultimedia System Control HeadE380, Removing and Installing", page 9
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- 1.1 Overview Infotainment System rmitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.
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- ⇒ -1.1.2 Infotainment System, MMI Radio with Connectivity Package (I8E)", page 3
- ⇒ -1.1.3 Infotainment System, MMI Navigation Plus, I8H", page 4

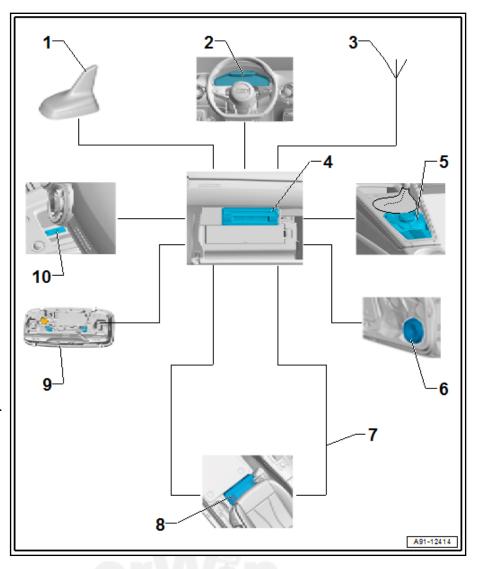
1.1.1 Overview - Infotainment System, MMI Radio (I8E)

- ♦ Information Electronics Control Module 1 -J794- with integrated CD player/SD card reader in the glove compartment
- Radio function is integrated in the Information Electronics Control Module 1 -J794-
- Instrument Cluster Control Module -J285-, display in instrument cluster, 9S8
- Multimedia System Control Head -E380- in the center console, UJ0
- External Audio Source Connection -R199- in the center console storage compartment, USB charging, AUX IN, UE4
- ◆ Sound System, Basic Sound, 8RE
- Multifunction Steering Wheel

Optional

- Digital radio integrated in the Information Electronics Control Module 1 -J794-, QV3
- Digital Sound System Control Module -J525- under the left front seat, 9VS
- USB Distributor -R293- in the center console storage compartment, USB (quantity: 2), AUX IN, UE7/UI2
- Sound system: standard sound system, 9VD/premium sound system, 9VS

- 1 Roof Antenna -R216-
- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Rear Window Antenna/Windshield Antenna
- 4 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 5 Multimedia System Control Head -E380- in the center console
- 6 Sound Systems
- 7 MOST Bus
- 8 Digital Sound System Control Module -J525- under the left front seat, 9VS
- 9 Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 10 External Audio Source Connection -R199-/USB Distributor -R293- in the Center Console Storage Compart-



1.1.2 Overview - Infotainment System, MMI Radio with Connectivity Package (I8E)

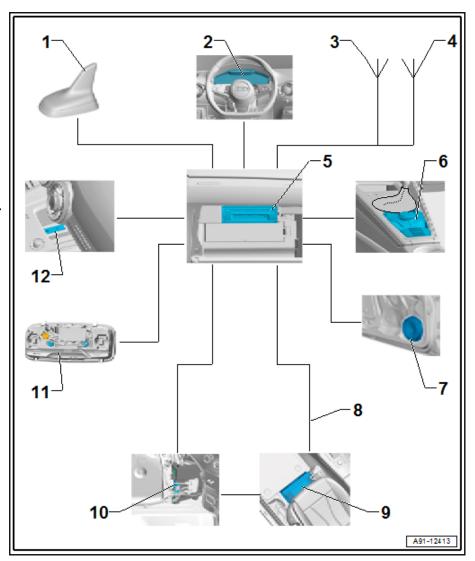
- Information Electronics Control Module 1 -J794- with integrated CD player/SD card reader in the glove compartment
- Radio function is integrated in the Information Electronics Control Module 1 -J794-
- Pre-installed navigation integrated in Information Electronics Control Module 1 -J794-, 7UH
- Instrument Cluster Control Module -J285-, display in instrument cluster, 9S8
- Multimedia System Control Head -E380- in the center console, UJ1
- USB Distributor -R293- in the front center console storage compartment, USB (quantity: 2), AUX IN, UE7/UI2
- Sound System, Basic Sound, 8RE
- Bluetooth Hands-Free Calling, 9ZX
- Multifunction Steering Wheel

Optional

- Digital radio integrated in the Information Electronics Control Module 1 -J794-, QV3
- Digital Sound System Control Module -J525- under the left front seat, 9VS
- TV Tuner -R78- in the left rear of the luggage compartment, QU1/QV1
- Sound system: standard sound system, 9VD/premium sound system, 9VS
- Audi phone box light, 9ZV
- ♦ Audi phone box, 9ZE

1 - Roof Antenna -R216-

- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Rear Window Antenna/Windshield Antenna
- 4 Not Installed
- 5 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 6 Multimedia System Control Head -E380- in the Center Console
- 7 Sound Systems
- 8 MOST Bus
- 9 Digital Sound System Control Module -J525- under the Left Front Seat, 9VS
- 10 TV Tuner -R78- behind the Right Luggage Compartment Trim Panel, QU1/QV1
- 11 Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 12 USB Distributor -R293- in the Center Console Storage Compartment



1.1.3 Overview - Infotainment System, MMI Navigation Plus, I8H

- ♦ Information Electronics Control Module 1 -J794- with integrated DVD player/SD card reader in the glove compartment
- Radio function is integrated in the Information Electronics Control Module 1 -J794-
- Navigation system MMI navigation plus with integrated Information Electronics Control Module 1 -J794-, 7UG



- Instrument Cluster Control Module -J285-, display in instrument cluster, 9S8
- Multimedia System Control Head -E380- in the center console, UJ1
- USB Distributor -R293- in the front center console storage compartment, USB (quantity: 2), AUX IN, UE7/UI2
- ♦ Sound system: basic plus sound, 8RM
- Bluetooth Hands-Free Calling, 9ZX
- Multifunction Steering Wheel

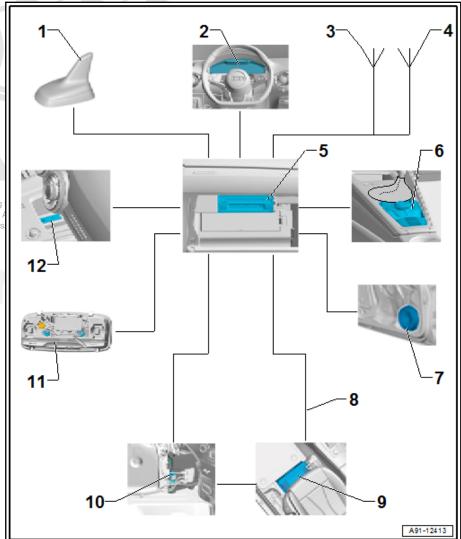
Optional

- Digital radio integrated in the Information Electronics Control Module 1 -J794-, QV3
- Digital Sound System Control Module -J525- under the left front seat, 9VS
- ♦ TV Tuner -R78- in the left rear of the luggage compartment, QU1/QV1
- ◆ Audi connect with SIM card reader integrated in Information Electronics Control Module 1 -J794-, EL3
- Sound system: standard sound system, 9VD/premium sound system, 9VS
- ♦ Audi phone box light, 9ZV
- ♦ Audi phone box, 9ZE

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- 1 Roof Antenna -R216-
- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Rear Window Antenna/Windshield Antenna
- 4 Bumper Antennas
- 5 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 6 Multimedia System Control Head -E380- in the Center Console

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- 7 Sound Systems
- 8 MOST Bus
- 9 Digital Sound System Control Module -J525- under the Left Front Seat, 9VS
- 10 TV Tuner -R78- behind the Right Luggage Compartment Trim Panel, QU1/QV1
- 11 Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 12 USB Distributor -R293- in the Center Console Storage Compartment



1.2 Component Location Overview - Infotainment System



1 - Information Electronics Control Module 1 -J794-

- In the glove compartment
- Removing and Installing. Refer to ⇒ I1.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8

2 - Multimedia System Control Head -E380-

□ Removing and Installing. Refer to ⇒ M1.5 ultimedia System Control HeadE380, Removing and Installing", page

3 - TV Tuner -R78-

See chapter ⇒ S6 ystem (Not for North America Market)", page

4 - Bracket

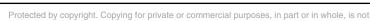
5 - Driver Volume Control -E67-

□ Removing and Installing. Refer to ⇒ V1.6 olume Con-trolE67, Removing and Installing", page 10

6 - Bolt

- □ 1.5 Nm
- Quantity: 3

7 - Center Console Insert



- Removing and installing. Refer to \Rightarrow Body Interior; Rep. Gr. 68; Center Console; Center Console Insert, Removing and Installing
- 8 External Audio Source Connection R199-/USB Distributor -R293-
 - See chapter ⇒ f9 or External Multimedia Devices", page 99

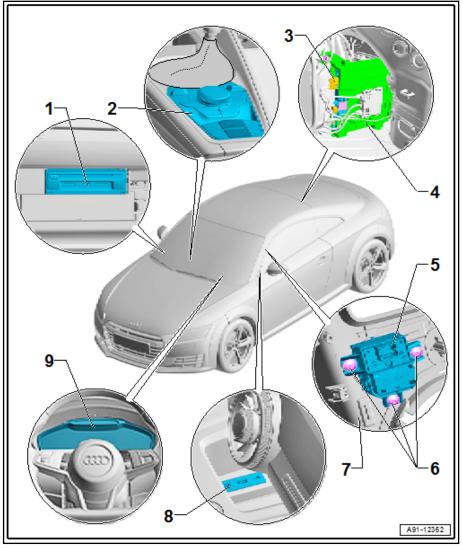
9 - Instrument Cluster Control Module -J285-

- Instrument cluster display
- □ Removing and Installing. Refer to ⇒ S1.3 ystem Display, Removing and Installing", page 7.

1.3 Infotainment System Display, Removing and Installing

The infotainment system display is integrated in the instrument cluster.

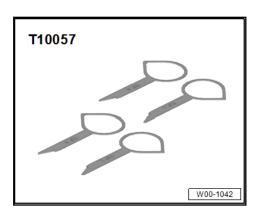
Instrument cluster removing and installing. Refer to ⇒ Electrical Equipment; Rep. Gr. 90; Instrument Cluster; Instrument Cluster -KX2-, Removing and Installing.



1.4 Information Electronics Control Module 1 -J794-, Removing and Installing

Special tools and workshop equipment required

♦ Radio Removal Tool -T10057-



 Fiber-Optic Repair Set - Connector Protective Caps -VAS6223/9-.



The Information Electronics Control Module 1 -J794- is located in the glove compartment.



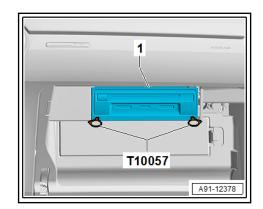
Note

If replacing the control module, select the "Replace control module" function for the corresponding control module on the \Rightarrow Vehicle diagnostic tester.

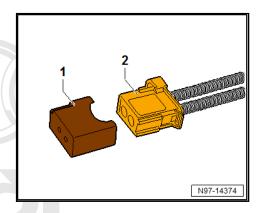
Removing

- Turn off the ignition and all electrical equipment.
- Open the glove compartment.
- Remove any CD/DVDs and SD/SIM cards from the Information Electronics Control Module 1 -J794-.
- Insert two of the Radio Removal Tool -T10057- into the release slots on the Information Electronics Control Module 1 -J794- -1- until they engage.





- The points on the gripping eyelets face outward.
- Remove the Information Electronics Control Module 1 J794--1- from the glove compartment at the Radio Removal Tool -T10057- grip eyes.
- Release and disconnect the connectors from the Information Electronics Control Module 1 -J794- -1-.
- Insert the Fiber-Optic Repair Set Connector Protective Caps -VAS6223/9- -1- onto the MOST bus connector -2-.



Press the release tabs on the Information Electronics Control Module 1 -J794- and remove the Radio Removal Tool -T10057-.

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Installing

Install in the reverse order of removal while noting the following:

- Connect all the connectors.
- Insert the Information Electronics Control Module 1 -J794until it engages in the glove compartment.

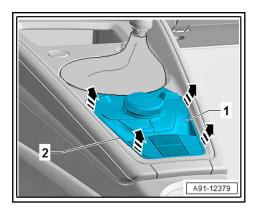
1.5 Multimedia System Control Head -E380-, Removing and Installing

The Multimedia System Control Head -E380- is located in the center console.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center console insert. Refer to ⇒ Body Interior; Rep. Gr. 68; Center Console; Center Console Insert, Removing and Installing.
- Release and disconnect the connectors on the rear side.

 Push the Multimedia System Control Head -E380- -1- out of the center console insert -2- from underneath using both hands





Note

- The image shows the Multimedia System Control Head -E380- installed.
- ♦ The four spring tabs secure the Multimedia System Control Head -E380-. The spring tabs are positioned very securely. A greater amount of force is necessary for removal.
- If the Multimedia System Control Head -E380- is replaced, then:
- ◆ Rebuild the Parking Brake Button -EX12-. Refer to ⇒ Electrical Equipment; Rep. Gr. 96; Controls; Parking Brake Button -EX12-, Removing and Installing.
- ◆ On roadster, rebuilding the Convertible Top Operation Switch -E137-/Convertible Wind Deflector Switch -E278-. Refer to ⇒ Electrical Equipment; Rep. Gr. 96; Controls; Component Location Overview - Center Console Controls.

Installing

Install in the reverse order of removal while noting the following:

- · Parking Brake Button -EX12- Installed
- On the roadster, Convertible Top Operation Switch -E137-/ Convertible Wind Deflector Switch -E278-, installed

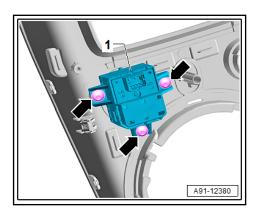
1.6 Driver Volume Control -E67-, Removing and Installing

The Driver Volume Control -E67- is installed in the center console insert.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center console insert. Refer to ⇒ Body Interior;
 Rep. Gr. 68; Center Console; Overview Center Console.
- Remove the bolts -arrows-.

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Remove the Driver Volume Control -E67- -1- from the center console insert.

Installing

Install in reverse order of removal.

Tightening Specifications

 Refer to ⇒ L1.2 ocation Overview - Infotainment System", page 6



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2 Sound System

- ⇒ -2.1 Sound System", page 12
- ⇒ L2.2 ocation Overview Sound System", page 16
- ⇒ M2.3 odule/Digital Sound System Amplifier, Removing and Installing", page 20
- ⇒ L2.4 eft Rear Treble SpeakerR14/Right Rear Treble SpeakerR16, Removing and Installing", page 23
- ⇒ L2.5 eft Front Treble SpeakerR20/Right Front Treble SpeakerR22, Removing and Installing", page 25
- ⇒ M2.6 idrange Speaker, Removing and Installing", page 25
- ⇒ L2.7 eft Rear Bass SpeakerR15/Right Rear Bass SpeakerR17, Removing and Installing", page 26
- ⇒ L2.8 eft Front Bass SpeakerR21/Right Front Bass SpeakerR23, Removing and Installing", page 28
- ⇒ C2.9 enter SpeakerR208, Removing and Installing", page 29
- ⇒ C2.10 enter Speaker 2R219, Removing and Installing", page 30

2.1 Overview - Sound System

- ⇒ -2.1.1 Sound System, Basic Sound System (8RE)", page 12
- ⇒ -2.1.2 Sound System, Basic Plus Sound System (8RM)", page 13
- ⇒ -2.1.3 Sound System, Standard Sound System (9VD)", page 14
- ⇒ -2.1.4 Sound System, Premium Sound System, 9VS", page 15

2.1.1 Overview - Sound System, Basic Sound System (8RE)

The Basic Sound System consists of the following components:

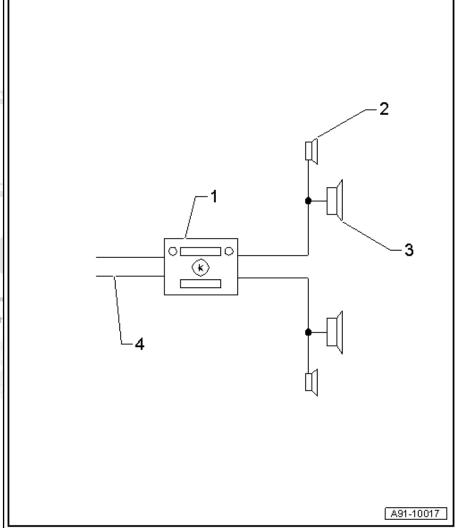
- One treble speaker on the left and right side of the instrument panel
- One bass speaker in the left and right doors
- ♦ Information Electronics Control Module 1 -J794-



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- 1 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 2 Left Front Treble Speaker -R20-/Right Front Treble Speaker -R22- in Left and Right of the Instrument Panel
- 3 Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- in the doors at the bottom
- 4 CAN bus, Infotainment



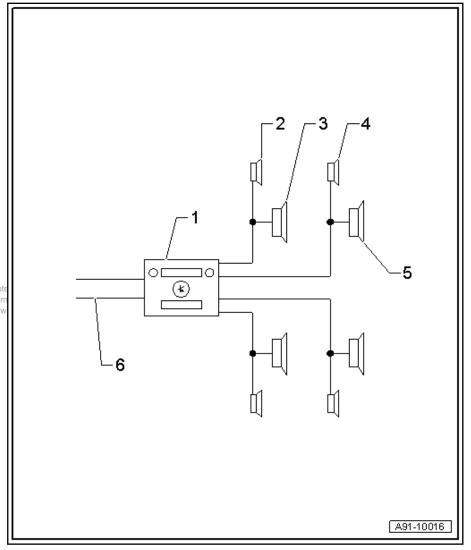
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Overview - Sound System, Basic Plus 2.1.2 Sound System (8RM)

The Basic Plus Sound System consists of the following components:

- One treble speaker on the left and right side of the instrument panel
- One bass speaker in the left and right doors
- Two speakers in the rear side trim panels, Coupe
- Two loud speakers on the left and rear panel, Roadster
- Information Electronics Control Module 1 -J794-

- 1 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 2 Left Front Treble Speaker -R20-/Right Front Treble Speaker -R22- in Left and Right of the Instrument Panel
- 3 Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- in the Doors at the **Bottom**
- 4 Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16- in the Rear Side Trim Panels/in the Rear Panel
- 5 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17- in the Rear Side Trim Panels/in the Rear Panel
- 6 MOST Bus



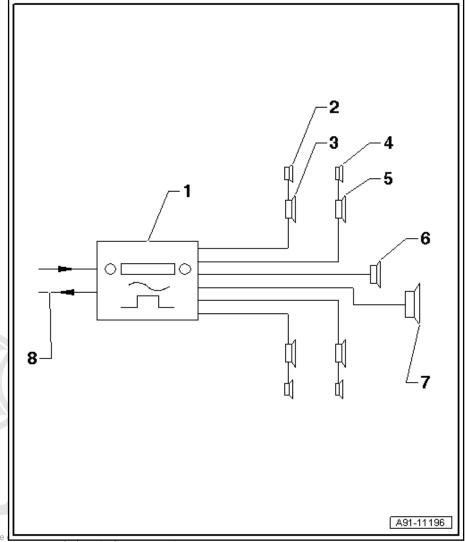
2.1.3 Overview - Sound System, Standard Sound System (9VD)

The standard sound system consists of the following components:

- One speaker in the instrument panel center
- One treble speaker on the left and right side of the instrument panel
- One bass speaker in the left and right doors
- Two speakers in the rear side trim panels, Coupe
- Two loud speakers on the left and rear panel, Roadster
- Information Electronics Control Module 1 -J794-



- 1 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 2 Left Front Treble Speaker -R20-/Right Front Treble Speaker -R22- in Left and Right of the Instrument Panel
- 3 Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- in the Doors at the **Bottom**
- 4 Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16- in the Rear Side Trim Panels/in the Rear Panel
- 5 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17- in the Rear Side Trim Panels/in the Rear Panel
- 6 Center Speaker -R208- in the Instrument Panel Center
- 7 Not Installed
- 8 MOST Bus



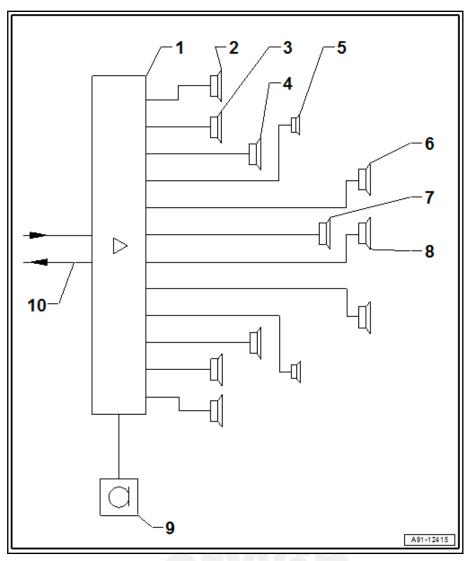
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2.1.4 Overview - Sound System, Premium Sound System, 9VS

The Premium Sound System consists of the following components:

- ◆ Two speakers in the center of the instrument panel
- One treble speaker on the left and right side of the instrument panel
- One midrange speaker in the left and right doors
- One bass speaker in the left and right doors
- Two speakers in the rear side trim panels, Coupe
- Two loud speakers on the left and rear panel, Roadster
- Digital Sound System Control Module -J525- under the left front seat

- 1 Digital Sound System Control Module -J525- under the Left Front Seat
- 2 Left Front Treble Speaker -R20-/Right Front Treble Speaker -R22- in Left and Right of the Instrument Panel
- 3 Left Front Midrange Speaker -R103-/Right Front Midrange Speaker -R104- in the Center of the Doors
- 4 Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- in the Doors at the **Bottom**
- 5 Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16- in the Rear Side Trim Panels/in the Rear **Panel**
- 6 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17- in the Rear Side Trim Panels/in the Rear Panel
- 7 Center Speaker -R208- in the Instrument Panel Center
- 8 Center Speaker 2 -R219in the Center of the Instrument Panel
- 9 Interior Microphone -R74-Microphone Unit in Front Roof Module -R164- Component in the Front Roof Module -WX3-
- 10 MOST Bus



2.2 **Component Location Overview -**Sound System

⇒ L2.2.1 ocation Overview - Sound System, Coupe", page 16

⇒ L2.2.2 ocation Overview - Sound System, Roadster", page 18

2.2.1 Component Location Overview - Sound System, Coupe

1 - Front Treble Speaker

- Left Front Treble Speaker -R20-
- ☐ Right Front Treble Speaker -R22-
- □ Removing and Installing. Refer to \Rightarrow L2.5 eft Front Treble SpeakerR20/Right Front Treble SpeakerR22, Removing and Installing", <u>page 25</u> .

2 - Retainers

3 - Front Midrange Speaker

- □ Left Front Midrange Speaker -R103-
- Right Front Midrange Speaker -R104-
- □ Premium Sound System, 9VS
- □ Removing and Installing. Refer to ⇒ M2.6 idrange Speaker, Removing and Installing", page 25

4 - Bolt

- □ 4 Nm
- Quantity: 3

5 - Front Bass Speaker

- □ Left Front Bass Speaker -R21-
- Right Front Bass Speaker -R23-
- Basic Sound System, 8RE/Basic Plus Sound System, 8RM
- □ Removing and Installing. Refer to ⇒ L2.8.1 eft Front Bass SpeakerR21/Right Front Bass SpeakerR23, Removing and Installing, 8RE/8RM", page 28.

6 - Bolt

- □ 4 Nm
- Quantity: 3

7 - Front Bass Speaker

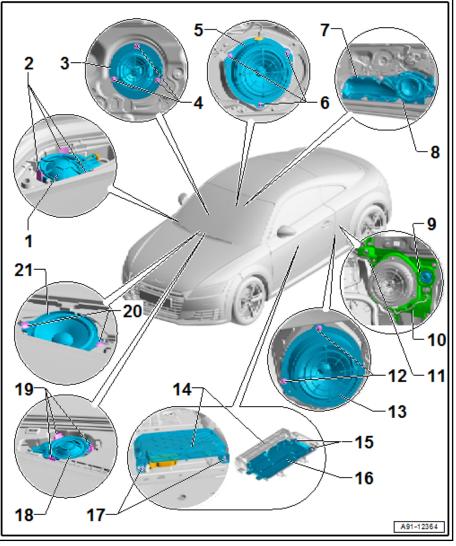
- Left Front Bass Speaker -R21-
- ☐ Right Front Bass Speaker -R23-
- □ Standard Sound System, 9VD/Premium Sound System, 9VS
- □ Removing and Installing. Refer to ⇒ L2.8.2 eft Front Bass Speaker R21/Right Front Bass Speaker R23. Removing and Installing. 9VD/9VS" page 29 or in whole, is not

itted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability 8 - Bolt/Nut h respect to the correctness of information in this document. Copyright by AUDI AG.

- □ 4 Nm
- Nut: quantity 3
- □ Bolt: quantity 14

9 - Rear Treble Speaker

- ☐ Left Rear Treble Speaker -R14-
- ☐ Right Rear Treble Speaker -R16-



	Basic Plus Sound System, 8RM/Standard Sound System, 9VD/Premium Sound System, 9VS			
	Removing and Installing. Refer to ⇒ L2.4.1 eft Rear Treble SpeakerR14/Right Rear Treble SpeakerR16, Removing and Installing, Coupe", page 23.			
10 - E	Bracket			
11 - E	Bolt			
	3 Nm			
	Quantity: 4			
12 - Bolt				
	2 Nm			
	Quantity: 3			
13 - Rear Bass Speaker				
	Left Rear Bass Speaker -R15-			
	Right Rear Bass Speaker -R17-			
	Basic Plus Sound System, 8RM/Standard Sound System, 9VD/Premium Sound System, 9VS			
	Removing and Installing. Refer to ⇒ L2.7.1 eft Rear Bass SpeakerR15/Right Rear Bass SpeakerR17, Removing and Installing, Coupe", page 26.			
14 - E	Bracket			
15 - E	3olt Solt Solt Solt Solt Solt Solt Solt S			
	3 Nm			
	Quantity: 2			
16 - [Digital Sound System Control Module -J525-			
	Premium Sound System, 9VS			
	Removing and Installing. Refer to \Rightarrow M2.3 odule/Digital Sound System Amplifier, Removing and Installing", page 20			
17 - N	Nut			
	3 Nm			
	Quantity: 2			
_	Center Speaker 2 -R219-			
	Premium Sound System, 9VS			
	Removing and Installing. Refer to <u>⇒ C2.10 enter Speaker 2R219, Removing and Installing", page 30</u> .			
19 - F	Retainer			
20 - E	Bolt			
	1.5 Nm			
	Quantity: 2 Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not			
21 - Center Speaker -R208 ed unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.				
	Standard Sound System, 9VD/Premium Sound System, 9VS			
	Removing and Installing. Refer to <u>⇒ C2.9 enter SpeakerR208, Removing and Installing", page 29</u> .			

Component Location Overview - Sound System, Roadster 2.2.2

1 - Front Treble Speaker

- Left Front Treble Speaker -R20-
- ☐ Right Front Treble Speaker -R22-
- □ Removing and Installing. Refer to \Rightarrow L2.5 eft Front Treble SpeakerR20/Right Front Treble SpeakerR22, Removing and Installing", <u>page 25</u> .

2 - Retainers

3 - Front Midrange Speaker

- □ Left Front Midrange Speaker -R103-
- Right Front Midrange Speaker -R104-
- □ Premium Sound System, 9VS
- □ Removing and Installing. Refer to ⇒ M2.6 idrange Speaker, Removing and Installing", page 25

4 - Bolt

- □ 4 Nm
- Quantity: 3

5 - Front Bass Speaker

- □ Left Front Bass Speaker -R21-
- Right Front Bass Speaker -R23-
- Basic Sound System, 8RE/Basic Plus Sound System, 8RM
- □ Removing and Installing. Refer to ⇒ L2.8.1 eft Front Bass SpeakerR21/Right Front Bass SpeakerR23, Removing and Installing, 8RE/8RM", page 28

6 - Bolt

- □ 4 Nm
- Quantity: 3

7 - Front Bass Speaker

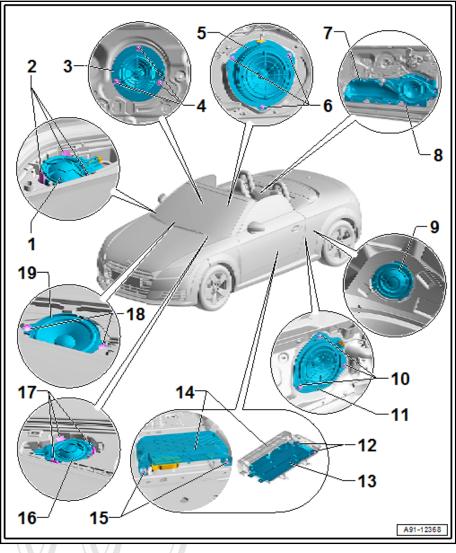
- Left recited by a wire to commit for principle or commercial purposes, in part or in whole, is not permitted unless authorized by AUDI AG. AUDI AG does not guarantee or accept any liability
- Right Front Bass Speaker P23tion in this document. Copyright by AUDI AG.
- ☐ Standard Sound System, 9VD/Premium Sound System, 9VS
- Removing and Installing. Refer to \Rightarrow L2.8.2 eft Front Bass Speaker R21/Right Front Bass Speaker R23, Removing and Installing, 9VD/9VS", page 29 .

8 - Bolt/Nut

- □ 4 Nm
- Nut: quantity 3
- ☐ Bolt: quantity 14

9 - Rear Treble Speaker

- ☐ Left Rear Treble Speaker -R14-
- ☐ Right Rear Treble Speaker -R16-



2.3 Control Module/Digital Sound System Amplifier, Removing and Installing

□ Standard Sound System, 9VD/Premium Sound System, 9VS

Special tools and workshop equipment required

□ Removing and Installing. Refer to ⇒ C2.9 enter SpeakerR208, Removing and Installing", page 29.

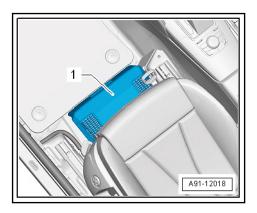
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Fiber-Optic Repair Set - Connector Protective Caps -VAS6223/9-.



The Digital Sound System Control Module -J525- -1- is located under the left front seat.





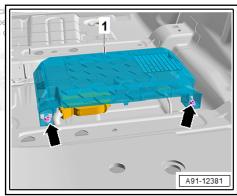
Note

If replacing the control module, select the "Replace control module" function for the corresponding control module on the ⇒ Vehicle diagnostic tester.

Removing

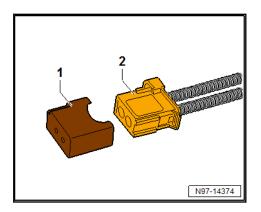
- Move the left front seat as far forward and up as possible.
- Turn off the ignition and all electrical equipment.
- Remove the nuts -arrows- from the bracket -1-.

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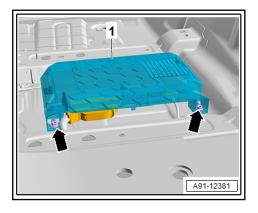


- Lift the bracket -1- with the Digital Sound System Control Module -J525- until the connectors are accessible.
- Release and disconnect the connectors from the Digital Sound System Control Module -J525-.

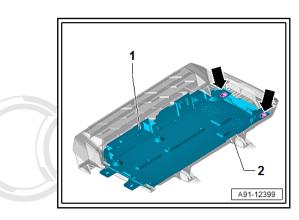
Insert the Fiber-Optic Repair Set - Connector Protective Caps -VAS6223/9- -1- onto the MOST bus connector -2-.



Pull the bracket -1- with the Digital Sound System Control Module -J525- out of the guides in the seat crossmember toward the rear and remove it.



Remove the bolts -arrows- and remove the Digital Sound System Control Module -J525- -1- from the bracket -2-.



Installing

Install in reverse order of removal.

Tightening Specifications

Refer to ⇒ L2.2.1 ocation Overview - Sound System,

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ster", page 18





2.4 Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16-, Removing and Installing

⇒ L2.4.1 eft Rear Treble SpeakerR14/Right Rear Treble SpeakerR16, Removing and Installing, Coupe", page 23

⇒ L2.4.2 eft Rear Treble SpeakerR14/Right Rear Treble SpeakerR16, Removing and Installing, Roadster", page 24

Left Rear Treble Speaker -R14-/Right 2.4.1 Rear Treble Speaker -R16-, Removing and Installing, Coupe

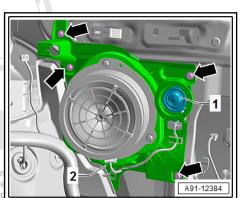
The Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16- are located in the rear side trim panels.

Removing and installing on the left and right sides are the same.

Removing

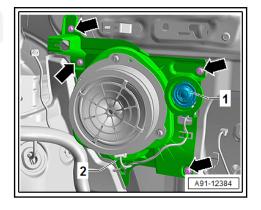
- Turn off the ignition and all electrical equipment.
- Remove the rear side trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Side Trim Panel, Removing and Installing.

The Left Rear Treble Speaker -R14- -1- is clipped into the bracket -2-. It must be removed first.



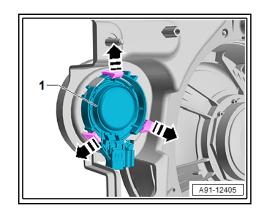
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Release and disconnect the connectors from the speakers.



Remove the bolts -arrows- and remove the bracket with the speakers from the side trim panel.





Push the tabs in direction of -arrows- outward and remove the Right Front Microphone -R14- -1- from the bracket.

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Tightening Specifications

Refer to ⇒ L2.2.1 ocation Overview - Sound System, Coupe", page 16

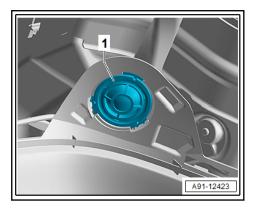
2.4.2 Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16-, Removing and Installing, Roadster

The Left Rear Treble Speaker -R14-/Right Rear Treble Speaker -R16- are located in the rear panel cover.

Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the rear panel cover. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Component Location Overview - Vehicle Interior Trim Panels.
- Push the tabs outward and remove the Right Front Microphone -R14- -1- from the trim panel.



Installing

Install in reverse order of removal.



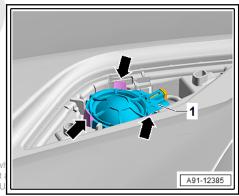
2.5 Left Front Treble Speaker -R20-/Right Front Treble Speaker -R22-, Removing and Installing

The Left Front Treble Speaker -R20- and Right Front Treble Speaker -R22- are located in the front of the instrument panel.

Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the side speaker trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Instrument Panel; Speaker Trim, Removing and Installing.
- Push the tabs -arrows- on the Left Front Treble Speaker -R20- -1- and remove the Left Front Treble Speaker -R20--1- upward.



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Release and disconnect the connector from the Left Front Treble Speaker -R20- -1-.

Installing

Install in reverse order of removal.

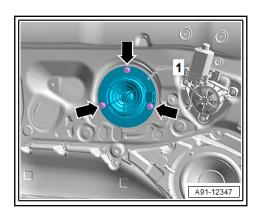
2.6 Front Midrange Speaker, Removing and Installing

The Left Front Midrange Speaker -R103-/Right Front Midrange Speaker -R104- are located in the center of the front doors.

Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the front door trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Front Door Trim Panels; Front Door Trim Panel, Removing and Installing.
- Release and disconnect the connector from the Left Front Midrange Speaker -R103-.



- Remove the bolts -arrows- from the Left Front Midrange Speaker -R103- -1-.
- Remove the Left Front Midrange Speaker -R103- -1- from the door.

Installing

Install in reverse order of removal.

Tightening Specifications

- Refer to ⇒ L2.2.1 ocation Overview Sound System, Coupe", page 16
- Refer to ⇒ L2.2.2 ocation Overview Sound System, Roadster", page 18
- 2.7 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17-, Removing and Installing
- ⇒ L2.7.1 eft Rear Bass SpeakerR15/Right Rear Bass SpeakerR17, Removing and Installing, Coupe", page 26
- ⇒ L2.7.2 eft Rear Bass SpeakerR15/Right Rear Bass SpeakerR17, Removing and Installing, Roadster", page 27
- 2.7.1 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17-, Removing and Installing, Coupe

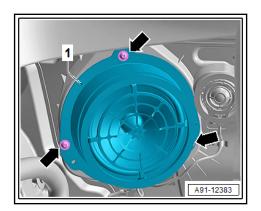
The Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17- are located behind the rear side trim panels.

Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the rear side trim panely Refer to By Body Interior mercial purposes, in part or in whole, is not Rep. Gr. 70; Vehicle Interior Triple Parish to Salahas Sheart in Grant Index and Grant Index and Index Interior Triple Parish Index and Index Interior Triple Parish Index Interior Triple Parish Index Interior Triple Parish Index Interior Triple Parish Index Removing and Installing.
- Release and disconnect the connector from the Left Rear Bass Speaker -R15- -1-.





Remove the screws -arrows- and then remove the Left Rear Bass Speaker -R15- -1- from the body.

Installing

Install in reverse order of removal.

Tightening Specifications

Refer to ⇒ L2.2.1 ocation Overview - Sound System, Coupe", page 16

2.7.2 Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17-, Removing and Installing, Roadster

The Left Rear Bass Speaker -R15-/Right Rear Bass Speaker -R17- are located behind the rear panel trim panel.

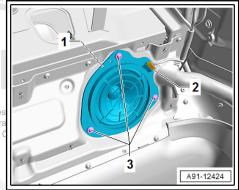
Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the rear panel trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Component Location Constitution Trian Panels; Component Location Constitution Trian Panels; Component Location Constitution Trian Panels; Component Location Constitution Cons tion Overview - Vehicle Interior Trim Panels.
- Release and disconnect the connector -2- from the Left Rear Bass Speaker -R15- -1-.



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Remove the screws -3- and then remove the Left Rear Bass Speaker -R15- -1- from the rear panel.

Installing

Install in reverse order of removal.

Tightening Specifications

- Refer to <u>⇒ L2.2.2 ocation Overview Sound System, Road-</u> ster", page 18
- 2.8 Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23-, Removing and Installing

⇒ L2.8.1 eft Front Bass SpeakerR21/Right Front Bass SpeakerR23, Removing and Installing, 8RE/8ŘM", page 28

⇒ L2.8.2 eft Front Bass Speaker R21/Right Front Bass Speaker R23, Removing and Installing, 9VD/9VS**, page 29

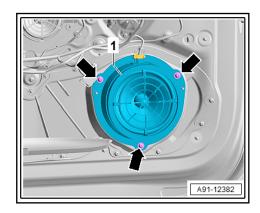
Left Front Bass Speaker -R21-/Right 2.8.1 Front Bass Speaker -R23-, Removing and Installing, 8RE/8RM

The Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- are located at the bottom of the front doors.

Removing and installing on the left and right sides are the

Removing

- Turn off the ignition and all electrical equipment.
- Remove the front door trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Front Door Trim Panels; Front Door Trim Panel, Removing and Installing.
- Release and disconnect the connector from the Left Front Bass Speaker -R21- -1-.



- Remove the bolts -arrows- from the Left Front Bass Speaker
- Remove the Left Front Bass Speaker -R21- -1- from the door.

Installing

Install in reverse order of removal.

Tightening Specifications

- ProRefervtor idea 2.2 ptirocation Overview Pound System hole, is not COPIDE Space 146 by AUDI AG. AUDI AG does not guarantee or accept any lial with respect to the correctness of information in this document. Copyright by AUDI AG.
- Refer to ⇒ L2.2.2 ocation Overview Sound System, Roadster", page 18



2.8.2 Left Front Bass Speaker - R21-/Right Front Bass Speaker - R23-, Removing and Installing, 9VD/9VS

The Left Front Bass Speaker -R21-/Right Front Bass Speaker -R23- are located at the bottom of the front doors.

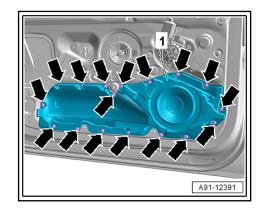
Removing and installing on the left and right sides are the same.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the front door trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Front Door Trim Panels; Front Door Trim Panel,

Protected Removing and donstalling mmercial purposes, in part or in whole, is not

with resRelease and disconnect the connector from the Left Front Bass Speaker -R21-.



- Remove the bolts and nuts -arrows- from the Left Front Bass Speaker -R21- -1-.
- Remove the Left Front Bass Speaker -R21- -1- from the

Installing

Install in reverse order of removal.

Tightening Specifications

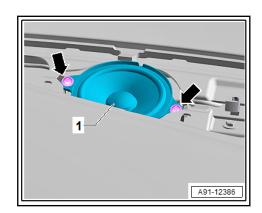
- Refer to ⇒ L2.2.1 ocation Overview Sound System, Coupe", page 16
- Refer to ⇒ L2.2.2 ocation Overview Sound System, Roadster", page 18

2.9 Center Speaker -R208-, Removing and Installing

The Center Speaker -R208- is located in the front of the instrument panel under the center speaker.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center front defroster vent. Refer to ⇒ Body Interior; Rep. Gr. 70; Instrument Panel; Front Center Defroster Vent, Removing and Installing.
- Remove the bolts -arrows- on the Center Speaker -R208- -1and remove the Center Speaker -R208- -1- upward.



Release and disconnect the connector from the Center Speaker -R208- -1-.

Installing

Install in reverse order of removal.

Tightening Specifications

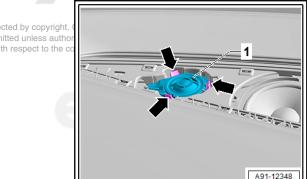
- Refer to ⇒ L2.2.1 ocation Overview Sound System, Coupe", page 16
- Refer to ⇒ L2.2.2 ocation Overview Sound System, Roadster", page 18

Center Speaker 2 -R219-, Removing 2.10 and Installing

The Center Speaker 2 -R219- is located in the front of the instrument panel under the center speaker trim.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center speaker trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Instrument Panel; Speaker Trim, Removing and Installing.
- Press the tabs -arrows- on the Center Speaker 2 -R219- -1and remove the Center Speaker 2 -R219- -1- upward.



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Release and disconnect the connector from the Center Speaker 2 -R219- -1-.

Installing

Install in reverse order of removal.

3 Antenna Systems

- ⇒ -3.1 Antenna Systems", page 31
- ⇒ L3.2 ocation Overview Antenna Systems", page 33
- ⇒ A3.3 mplifier, Removing and Installing", page 37
- ⇒ W3.4 indshield Antenna Suppression FilterC18, Removing and Installing", page 41
- ⇒ A3.5 ntenna, Removing and Installing", page 43
- ⇒ A3.6 ntenna, Removing and Installing", page 43
- ⇒ A3.7 ntenna, Removing and Installing", page 44
- ⇒ A3.8 ntennas, Removing and Installing", page 45
- ⇒ R3.9 adio Antenna, Removing and Installing", page 45
- ⇒ T3.10 uner Antenna, Removing and Installing", page 45
- ⇒ A3.11 ntennas, Removing and Installing", page 46
- ⇒ D3.12 ata Antenna, Removing and Installing", page 47
- ⇒ F3.13 ield Communication Antenna, Removing and Installing", page 48
- ⇒ P3.14 anel/Rollover Support Antenna, Removing and Installing", page 49
- ⇒ A3.15 ntennas, Removing and Installing", page 49

3.1 Overview - Antenna Systems

- ⇒ -3.1.1 Antenna Systems, Coupe", page 31
- ⇒ -3.1.2 Antenna Systems, Roadster", page 32

per 3 1 unless author Overview - Antenna Systems, Coupe

Roof Antenna -R216-

- ♦ GPS Antenna -R50-, 7UG/7UH
- ◆ Telephone Antenna -R65-, EL0
- ◆ LTE Antenna 1 -R297-, ER3 and EL3 and 9ZE
- ◆ LTE Antenna 2 -R306-, ER1/ER2 and EL3
- ◆ Satellite Tuner Antenna -R172-, QV3 and ER3

Window Antennas

- ◆ Antenna -R11- (AM/FM1)/TV Antenna 1 -R55- (TV1) to the Antenna Amplifier -R24- at the upper right of the rear lid.
- TV Antenna 2 -R56- (TV2) to the TV Antenna Amplifier 1 -R82- on the lower right of the rear lid.
- Radio Antenna 2 -R93- (FM2)/Digital Radio Antenna -R183-(DAB) to the Antenna Amplifier 2 -R111- on the upper left of the rear lid.
- TV Antenna 3 -R57- (TV3) to the TV Antenna Amplifier 2 -R83- on the lower left of the rear lid

Antenna with DAB only ER1/ER2 and QV3

Antenna with TV, only QU1/QV1

Bumper Antennas

- Telephone Antenna -R65- under the rear bumper cover on the right side, 9ZE and EL3
- LTE Antenna 1 -R297- under the rear bumper cover on the left side, ER1/ER2 and EL3 as well as ER3 and EL3 and 9ZV/9ZX
- ◆ LTE Antenna 2 -R306- under the rear bumper cover on the left side, ER3 and EL3 and 9ZE
- LTE Antenna 2 -R306- under the rear bumper cover on the right side, ER3 and EL3 and 9ZV/9ZX

Additional Antennas

- Near Field Communication Antenna -R269- behind the instrument cluster, ER5
- Traffic Data Antenna -R173- at the top of the windshield, ER5

Overview - Antenna Systems, Roadster

Radio and TV Antennas

Antennas AM1/FM1/FM2/TV2 are film antennas in the left and right convertible top flap.

The antennas DAB/TV1/TV3 are in the left and right windshield antennas.

The antenna AM2 is in cord in the convertible top.

- ◆ Antenna -R11- (AM/FM1) to the Antenna Amplifier -R24- on the right B-pillar
- Radio Antenna 2 -R93- (FM2)/TV Antenna 2 -R56- (TV2) to the Antenna Amplifier 4 -R113- at the left B-pillar.
- Radio Antenna -R248- (AM2) to the Antenna Amplifier 3
 -R112- on the right convertible top mechanism, near the right B-pillar.

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- TV Antenna 1 -R55- (TV1)/Digital Radio Antenna R183 nation in this document. Copyright by AUDI AG. (DAB) to the Antenna Amplifier 2 -R111- on the upper right of the A-pillar.
- ◆ TV Antenna 3 -R57- (TV3) to the TV Antenna Amplifier 2 -R83- on the upper left of the A-pillar.
- Satellite Tuner Antenna -R172- on the rear lid, only for QV3 and ER3

Antenna with DAB only ER1/ER2 and QV3

Antenna with TV, only QU1/QV1

Bumper Antennas

- ◆ Telephone Antenna -R65- under the rear bumper cover on the right side, ER1/ER2 and 9ZE and EL3
- LTE Antenna 2 -R306- under the rear bumper cover on the right side, ER3 and EL3
- ◆ LTE Antenna 1 -R297- under the rear bumper cover on the left side, EL3

Telephone and Navigation Antennas

 Telephone Antenna -R65- under the rear panel cover, ER1/ER2 and 9ZE and EL0 as well as ER3 and 9ZE and EL0/EL3



- LTE Antenna 2 -R306- under the rear panel cover, ER1/ER2 and EL3
- GPS Antenna -R50- under the front of the instrument panel, 7UG/7UH

Additional antennas

Near Field Communication Antenna -R269- behind the instrument cluster, ER5

Traffic Data Antenna -R173- at the top of the windshield, ER5

3.2 Component Location Overview - Antenna Systems

⇒ L3.2.1 ocation Overview - Antenna Systems, Coupe", page 33

⇒ L3.2.2 ocation Overview - Antenna Systems, Roadster", page 35

Component Location Overview - Antenna Systems, Coupe 3.2.1

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□ 5 Nm

2 - Roof Antenna -R216-

- Depending on vehicle equipment with the following integrated antennas:
- GPS Antenna -R50-, **7UG/7UH**
- Telephone Antenna -R65-, EL0
- LTE Antenna 1 PR297 ty copyri ER3 and EL3 and 92 Eunless a
- LTE Antenna 2 -R306-, ER1/ER2 and EL3
- Satellite Tuner Antenna -R172-, ER3 and QV3
 - Removing and Installing. Refer to ⇒ A3.5 ntenna, Removing and Installing", page 43 .

3 - Antenna Amplifier -R24-

Removing and Installing. Refer to = A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page 37

- TV Antenna Amplifier 1 -R82-

□ Removing and Installing. Refer to ⇒

A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page

4 - Bolt

□ 2 Nm

5 - Bumper Antennas

- □ Antenna assignment depends on the equipment and the market version. Refer to ⇒ -3.1.1 Antenna Systems, Coupe", page 31.
- □ Removing and Installing. Refer to ⇒ A3.11 ntennas, Removing and Installing", page 46.

6 - Bracket

Removing and Installing. Refer to ⇒ A3.11 ntennas, Removing and Installing", page 46.

7 - Nut

□ 3.5 Nm

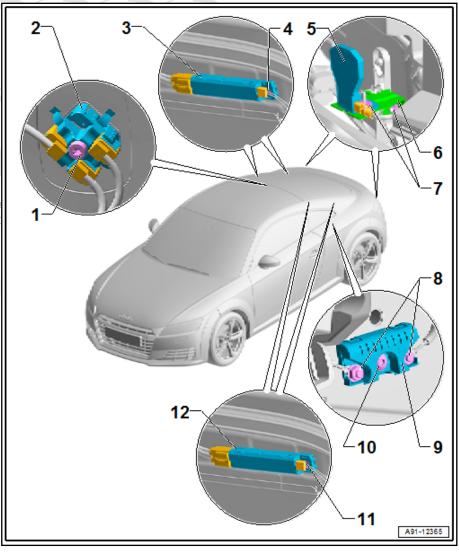
8 - Nut

□ 9 Nm

9 - Windshield Antenna Suppression Filter -C18-

☐ Removing and Installing. Refer to ⇒ W3.4.1 indshield Antenna Suppression FilterC18, Removing and Installing, Coupe", page 41

10 - Bolt



- □ 9 Nm
- 11 Bolt
 - □ 2 Nm
- 12 TV Antenna Amplifier 2 -R83-
 - \square Removing and Installing. Refer to \Rightarrow A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page 37.
- -Antenna Amplifier 2 -R111-
 - □ Removing and Installing. Refer to ⇒ A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page 37
- Component Location Overview Antenna Systems, Roadster 3.2.2



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1 - TV Antenna Amplifier 2 -R83-/Antenna Amplifier 2 -R111-

- □ TV Antenna Amplifier 2 -R83- on the left A-pillar
- Antenna Amplifier 2 -R111- on the right Apillar
- Removing and Installing. Refer to A3.3.3 mplifier 2R111/ TV Antenna Amplifier 2R83, Removing and Installing, Roadster", page 39

2 - Bolt

□ 2.8 Nm

3 - Antenna Amplifier 3 -R112-

- On the right rear convertible top frame
- Removing and Installing. Refer to ⇒ A3.3.4 ntenna Amplifier 3R112, Removing and Installing, Roadster", <u>page 40</u>

4 - Bolt

□ 2 Nm

5 - Rear Panel/Rollover Support Antenna

Antenna assignment depends on the equipment and the market version. Refer to ⇒

stems, Roadster", page 32.

□ Removing and Installing. Refer to ⇒ P3.14 anel/Rollover Support Antenna, Removing and Installing", page 49

6 - Bolt

□ 4 Nm

7 - Satellite Tuner Antenna -R172-

- ER3 and QV3
- □ Removing and Installing, Refer to ⇒ T3.10.2 uner Antenna, Removing and Installing, Roadster", page <u>45</u> .

8 - Nut

□ 6 Nm

9 - Bumper Antennas

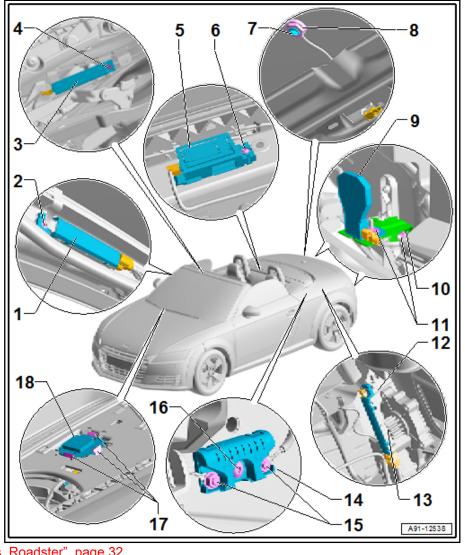
- Antenna assignment depends on the equipment and the market version. Refer to ⇒ -3.1.2 Antenna Systems, Roadster", page 32.
- □ Removing and Installing. Refer to ⇒ A3.11 ntennas, Removing and Installing", page 46.

10 - Bracket

□ Removing and Installing. Refer to ⇒ A3.11 ntennas, Removing and Installing", page 46.

11 - Nut

□ 3.5 Nm



12 -	Bolt
	2.8 Nm
13 - 1	Antenna Amplifier -R24-/Antenna Amplifier 4 -R113-
	Antenna Amplifier -R24- on right side of B-pillar
	Antenna Amplifier 4 -R113- on left side of B-pillar
	Antenna Amplifier Right Multimedia Headphones -R124- / Antenna Amplifier 4 Antenna Amplifier 4 - R113-, Removing and Installing. Refer to ⇒ A3.3.2 mplifierR24 / Antenna Amplifier 4R113, Removing and Installing, Roadster", page 38.
	Left/right film antenna, removing and installing. Refer to \Rightarrow A3.15 ntennas, Removing and Installing", page 49.
14 - Windshield Antenna Suppression Filter -C18-	
	Removing and Installing. Refer to \Rightarrow W3.4.2 indshield Antenna Suppression FilterC18, Removing and Installing, Roadster", page 42.
15 - Bolt	
	9 Nm
16 - 1	Bolt
	9 Nm
17 - 1	Retainers
18 -	GPS Antenna -R50-
	7UH/7UG
	Removing and Installing. Refer to ⇒ A3.6.2 ntenna, Removing and Installing, Roadster", page 44.

3.3 Antenna Amplifier, Removing and Installing

⇒ A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page 37

⇒ A3.3.2 mplifierR24 / Antenna Amplifier 4R113, Removing and Installing, Roadster", page 38

⇒ A3.3.3 mplifier 2R111/ TV Antenna Amplifier 2R83, Removing and Installing, Roadster", page 39

⇒ A3.3.4 ntenna Amplifier 3R112, Removing and Installing, Roadster", page 40

3.3.1 TV Antenna Amplifier 1, 2 and 3 -R24-/- R111-/- R82-/-R83-, Removing and Installing, Coupe

The antenna amplifiers are located in the upper left/right an lower left/right rear lid.

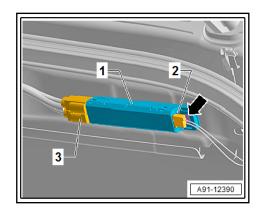
Removing and installing is identical.

nmercial purposes, in part or in whole, is not Removing inless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability ct to the correctness of information in this document. Copyright by AUDI AG.

- Turn off the ignition and all electrical equipment.
- Remove the rear lid upper trim panel for the antenna amplifiers Antenna Amplifier -R24-/Antenna Amplifier 2 -R111-. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Rear Lid Upper Trim Panel, Removing and Installing.
- Remove the rear lid lower trim panel for the TV Antenna Amplifier 1 & 2 TV Antenna Amplifier 1 -R82-/TV Antenna Amplifier 2 -R83-. Refer to ⇒ Body Interior; Rep. Gr. 70;

Luggage Compartment Trim Panels; Rear Lid Lower Trim Panel, Removing and Installing.

 Release and disconnect the connectors -2 and 3- from the antenna amplifier -1-.

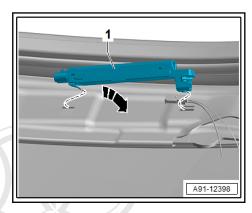


Loosen the screw -arrow- several turns and remove the antenna amplifier -1- from the rear lid.

Installing

Install in the reverse order of removal while noting the following:

 Engage the antenna amplifier -1- first left and then right -arrow- in the openings and the tighten.



Insert and lock the connectors.

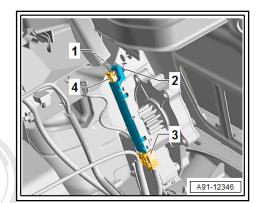
Tightening Specifications

- Refer to ⇒ L3.2.1 ocation Overview Antenna Systems, Coupe", page 33
- 3.3.2 Antenna Amplifier -R24- / Antenna Amplifier 4 -R113-, Removing and Installing, Roadster Permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

The Antenna Amplifier -R24-/Antenna Amplifier 4 -R113- are located on the right/left B-pillar.

Removing and installing is identical.

- Turn off the ignition and all electrical equipment.
- Remove the rear panel trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Component Location Overview - Vehicle Interior Trim Panels.
- Release and disconnect the connectors -3 and 4- from the antenna amplifier -2-.



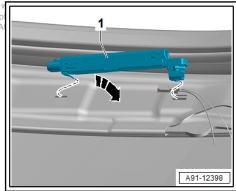
Loosen the screw -1- several turns and remove the antenna amplifier -1- from the B-pillar.

Installing

Install in the reverse order of removal while noting the following:

Engage the antenna amplifier -1- first left and then right -arrow- in the openings and the tighten.

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- Insert and lock the connectors.

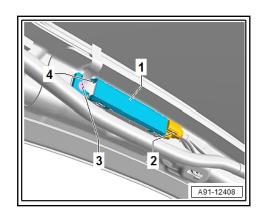
Tightening Specifications

- Refer to ⇒ L3.2.2 ocation Overview Antenna Systems, Roadster", page 35
- Antenna Amplifier 2 -R111-/ TV Anten-3.3.3 na Amplifier 2 -R83-, Removing and Installing, Roadster

The Antenna Amplifier 2 -R111-/ TV Antenna Amplifier 2 -R83are located on the left/right upper A-pillar.

Removing and installing is identical.

- Turn off the ignition and all electrical equipment.
- Remove the A-pillar trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; A-Pillar Trim Panel, Removing and Installing.
- Release and disconnect the connectors -2 and 4- from the antenna amplifier -1-.

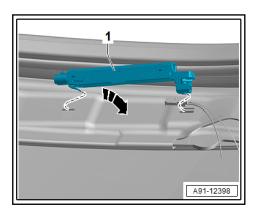


Loosen the screw -3- several turns and remove the antenna amplifier -1- from the A-pillar.

Installing

Install in the reverse order of removal while noting the following:

Engage the antenna amplifier -1- first left and then right -arrow- in the openings and the tighten.



- Insert and lock the connectors.

Tightening Specifications

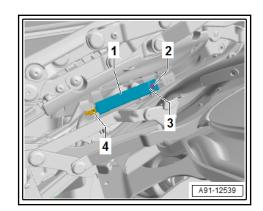
Refer to ⇒ L3.2.2 ocation Overview - Antenna Systems, Roadster", page 35

Antenna Amplifier 3 -R112-, Removing 3.3.4 and Installing, Roadster

The Antenna Amplifier 3 - R112- is located on the right side on the convertible top mechanism for the convertible top frame.

- Turn off the ignition and all electrical equipment.
- Remove the right rear roof frame trim panel. Refer to > Body
 PExterior: Rept GP/61 Attachments Convertible Top Trim's not
 punited and satisfaction of the properties of accept any liability
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- Release and disconnect the connectors -3 and 4- from the Antenna Amplifier 3 -R112- -1-.



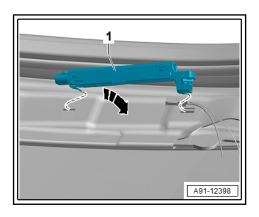


Loosen the bolt -2- several turns and remove the Antenna Amplifier 3 -R112- -1-.

Installing

Install in the reverse order of removal while noting the following:

Engage the antenna amplifier -1- first left and then right -arrow- in the openings and the tighten.



- Insert and lock the connectors.

Tightening Specifications

- Refer to ⇒ L3.2.2 ocation Overview Antenna Systems, Roadster", page 35
- Windshield Antenna Suppression Filter 3.4 -C18-, Removing and Installing

⇒ W3.4.1 indshield Antenna Suppression FilterC18, Removing and Installing, Coupe", page 41

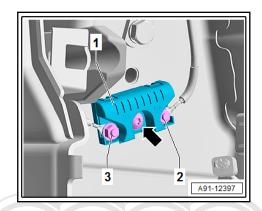
Pro⇒:W3.4.2-indshield-Antenna Suppression FilterC18, Removing perand Installing; Roadster's, page: 42 es not guarantee or accept any liability

3.4.1 Windshield Antenna Suppression Filter -C18-, Removing and Installing, Coupe

The Windshield Antenna Suppression Filter -C18- is located behind the left side trim panel.

- Turn off the ignition and all electrical equipment.
- Remove the left side trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Side Trim Panel, Removing and Installing.

 Remove the nuts -2 and 3- from the Windshield Antenna Suppression Filter -C18- -1-.



- Disconnect the wires on the Windshield Antenna Suppression Filter -C18- -1-.
- Remove the bolt -arrow- and the Windshield Antenna Suppression Filter -C18- -1-.

Installing

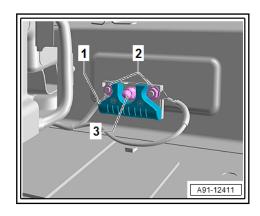
Install in reverse order of removal.

Tightening Specifications

- Refer to ⇒ L3.2.1 ocation Overview Antenna Systems, Coupe", page 33
- 3.4.2 Windshield Antenna Suppression Filter ed by copyright. Copyright Copyright or commercial purposes, in part or in whole, is not -C18-, Removing and Installing, Road hr respect to the correctness of information in this document. Copyright by AUDI AG. ster

The Windshield Antenna Suppression Filter -C18- is located in the front left of the luggage compartment behind the trim panel.

- Turn off the ignition and all electrical equipment.
- Remove the front luggage compartment trim panel. Refer to
 ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim
 Panels; Luggage Compartment Trim Panel Component Location Overview.
- Remove the nuts -2- and from the Windshield Antenna Suppression Filter -C18- -1-.



- Disconnect the wires on the Windshield Antenna Suppression Filter -C18- -1-.
- Remove the nut -3- and the Windshield Antenna Suppression Filter -C18- -1-.





Installing

Install in reverse order of removal.

Tightening Specifications

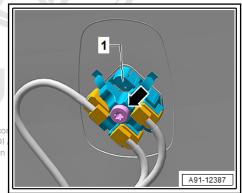
 Refer to ⇒ L3.2.2 ocation Overview - Antenna Systems, Roadster", page 35

3.5 Roof Antenna, Removing and Installing

The antenna wires are connected directly to the base of the Roof Antenna -R216-.

Removing

- Turn off the ignition and all electrical equipment.
- Lower the headliner. Refer to ⇒ Body Interior; Rep. Gr. 70; Roof Trim Panels; Overview - Headliner.
- Depending on the vehicle equipment, release and disconnect the connectors to the antenna wires.



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- Loosen the bolt -arrow-.
- Remove the Roof Antenna -R216- -1- upward from the roof.

Install in the reverse order of removal while noting the following:

Place the Roof Antenna -R216- on the roof and press down on it until it engages.

Tightening Specifications

- Refer to ⇒ L3.2.1 ocation Overview Antenna Systems, Coupe", page 33
- 3.6 GPS Antenna, Removing and Installing
- ⇒ A3.6.1 ntenna, Removing and Installing, Coupe", page 43
- ⇒ A3.6.2 ntenna, Removing and Installing, Roadster", page 44

3.6.1 GPS Antenna, Removing and Installing, Coupe

The GPS Antenna -R50- is located in the Roof Antenna -R216-.

Roof Antenna -R216-, Removing and Installing. Refer to ⇒ A3.5 ntenna, Removing and Installing", page 43.

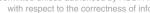
3.6.2 GPS Antenna, Removing and Installing, Roadster

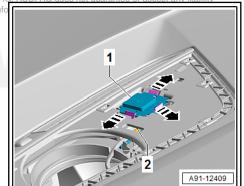
The GPS Antenna -R50- is located in the front of the instrument panel under the center speaker trim.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center speaker trim. Refer to ⇒ Body Interior; Rep. Gr. 70; Instrument Panel; Speaker Trim, Removing and Installing.
- Push the catches in direction of -arrows- outward and pry out the GPS Antenna -R50- -1-.

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Disconnect the connector.

Installing

Install in reverse order of removal.

3.7 GSM Antenna, Removing and Installing

⇒ A3.7.1 ntenna, Removing and Installing, Coupe", page 44

⇒ A3.7.2 ntenna, Removing and Installing, Roadster", page 44

3.7.1 GSM Antenna, Removing and Installing, Coupe

The Telephone Antenna - R65- is located in the Roof Antenna -R216-, ER1/ER2 and 9ZE and EL0 as well as ER3 and 9ZE and EL0/EL3.

 Roof Antenna -R216-, Removing and Installing. Refer to ⇒ A3.5 ntenna, Removing and Installing", page 43.

Telephone Antenna -R65- is located under the rear bumper cover on the right side, ER1/ER2 and 9ZE and EL3.

Bumper Antennas, Removing and Installing. Refer to ⇒
 A3.11 ntennas, Removing and Installing", page 46.

3.7.2 GSM Antenna, Removing and Installing, Roadster

The Telephone Antenna -R65- is located under the rear panel cover between both the rollover supports, ER1/ER2 and 9ZE and EL0 as well as ER3 and 9ZE and EL0/EL3.

Roof Antenna -R216-, Removing and Installing. Refer to
 <u>A3.5 ntenna, Removing and Installing", page 43</u>.



Telephone Antenna -R65- is located under the rear bumper cover on the right side, ER1/ER2 and 9ZE and EL3.

Bumper Antennas, Removing and Installing. Refer to
 <u>A3.11 ntennas, Removing and Installing", page 46</u> .

3.8 LTE Antennas, Removing and Installing

The LTE Antenna 1 -R297- is located in the Roof Antenna -R216-, ER1/ER2 and EL3.

Roof Antenna -R216-, Removing and Installing. Refer to ⇒
 A3.5 ntenna, Removing and Installing", page 43.

LTE Antenna 1 -R297- is located under the rear bumper cover on the right side, ER3 and EL3.

Bumper Antennas, Removing and Installing. Refer to ⇒
 A3.11 ntennas, Removing and Installing", page 46.

LTE Antenna 2 -R306- is located under the rear bumper cover on the left side, EL3.

Bumper Antennas, Removing and Installing. Refer to ⇒
 A3.11 ntennas, Removing and Installing", page 46.

3.9 Digital Radio Antenna, Removing and Installing

The Digital Radio Antenna -R183- (DAB) is connected to the Antenna Amplifier 2 -R111-, $\,$ QV3.

- Antenna Amplifier 2 -R111-, Removing and Installing,
 Coupe. Refer to ⇒ A3.3.1 ntenna Amplifier 1, 2 and 3 R24/ R111/ R82/R83, Removing and Installing, Coupe", page 37
- Antenna Amplifier 2 -R111-, Removing and Installing, Roadster. Refer to ⇒ A3.3.3 mplifier 2R111/ TV Antenna Amplifier 2R83, Removing and Installing, Roadster", page 39

3.10 Satellite Tuner Antenna, Removing

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⇒ T3.10.1 uner Antenna, Removing and Installing, Coupe", page 45

⇒ T3.10.2 uner Antenna, Removing and Installing, Roadster", page 45

3.10.1 Satellite Tuner Antenna, Removing and Installing, Coupe

The Satellite Tuner Antenna -R172- is located in the Roof Antenna -R216-.

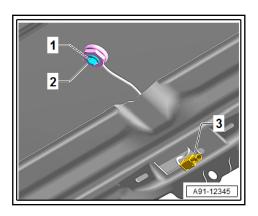
Roof Antenna -R216-, Removing and Installing. Refer to ⇒
 A3.5 ntenna, Removing and Installing", page 43.

3.10.2 Satellite Tuner Antenna, Removing and Installing, Roadster

The Satellite Tuner Antenna -R172- is located on the rear lid.

- Turn off the ignition and all electrical equipment.
- Remove the rear lid trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim; Rear Lid Upper Trim Panel, Removing and Installing.

Unlock and disconnect the connector for the antenna wire -3-.



- Remove the nut -2-.
- Remove the Satellite Tuner Antenna -R172- -1- upward from the rear lid.

Installing

Install in reverse order of removal.

Tightening Specifications

Refer to <u>⇒ L3.2.2 ocation Overview - Antenna Systems</u>, Roadster", page 35

3.11 Bumper Antennas, Removing and Installing

The bumper antennas are located on the left and right side under the rear bumper cover on the body.

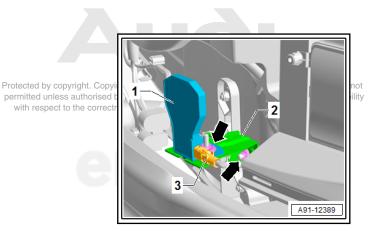
Depending on the vehicle equipment, different bumper antennas may be installed. Refer to ⇒ -3.1 Antenna Systems", page <u>31</u> .

Removing

- Turn off the ignition and all electrical equipment.
- Remove the rear bumper cover. Refer to ⇒ Body Exterior; Rep. Gr. 63; Rear Bumper; Bumper Cover, Removing and Installing.

Right Rear Bumper Antenna

- Release and disconnect the connector -3-.



- Remove the nut -arrow- on the bumper antenna -1-.
- Remove the bumper antenna -1- from the bracket -2-.



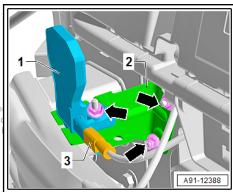
If necessary, remove the nut -arrow- for the bracket -2- and remove the bracket -2- from the body.

Left Rear Bumper Antenna

Release and disconnect the connector -3-.



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- Remove the nut -arrow- on the bumper antenna -1-.
- Remove the bumper antenna -1- from the bracket -2-.
- If necessary, remove the nuts -arrow- for the bracket -2- and remove the bracket -2- from the body.

Installing

Install in reverse order of removal.

Tightening Specifications

- Refer to ⇒ L3.2.1 ocation Overview Antenna Systems, Coupe", page 33
- Refer to ⇒ L3.2.2 ocation Overview Antenna Systems, Roadster", page 35

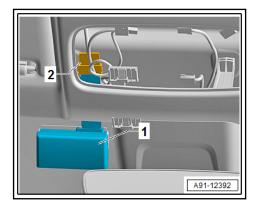
3.12 Traffic Data Antenna, Removing and Installing

The Traffic Data Antenna -R173- is located at the top of the windshield in the center, ER5.

Removing

Turn off the ignition and all electrical equipment.

The connectors -2- for the Traffic Data Antenna -R173- -1- are located behind the Front Roof Module -WX3-. The flat band cable is routed on the roof crossmember.

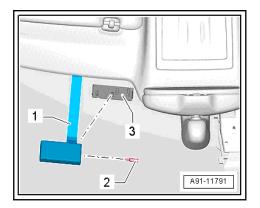


Remove the Front Roof Module -WX3-. Refer to ⇒ Electrical Equipment; Rep. Gr. 96; Controls; Front Interior Lamp/Reading Lamp, Removing and Installing.

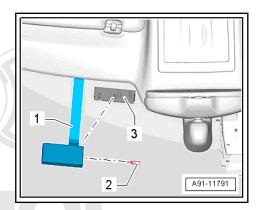
Disconnect the connector -2-.

Traffic Data Antenna -R173- removal:

A securing piece -2- secures the Traffic Data Antenna -R173--1- in its bracket -3-. The bracket is glued to the windshield -3-.



Remove the safety piece -2- with a small screwdriver.



Remove the Traffic Data Antenna -R173- -1- from the bracket -3-.

Installing

Install in reverse order of removal.

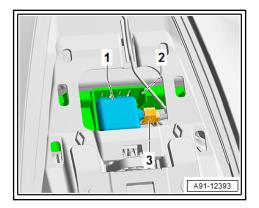
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3.13 Near Field Communication Antenna, Removing and Installing

The Near Field Communication Antenna -R269- is located in the instrument panel under the instrument cluster instrument panel lid.

- Turn off the ignition and all electrical equipment.
- Remove the instrument cluster lid. Refer to ⇒ Body Interior; Rep. Gr. 70; Instrument Panel; Overview - Instrument Panel.
- Pry out the Near Field Communication Antenna -R269- -1from the retainer -2-.





Release and disconnect the connector -3-.

Installing

Install in reverse order of removal.

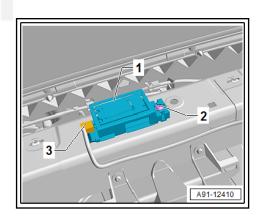
3.14 Rear Panel/Rollover Support Antenna, Removing and Installing

The antenna is located under the rear panel cover between both rollover supports.

Either the Telephone Antenna -R65- or the LTE Antenna 1 -R297- is installed depending on the equipment and market version. Refer to ⇒ -3.1 Antenna Systems", page 31.

Removing

- Turn off the ignition and alleectrical equipments. AUDI AG does not guarantee or accept any liability
- Remove the rear panel cover. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Component Location Overview - Vehicle Interior Trim Panels.
- Release and disconnect the connector -3-.



Remove the bolt -2- and the antenna -1-.

Installing

Install in reverse order of removal.

Tightening Specifications

Refer to ⇒ L3.2.2 ocation Overview - Antenna Systems,

3.15 Film Antennas, Removing and Installing

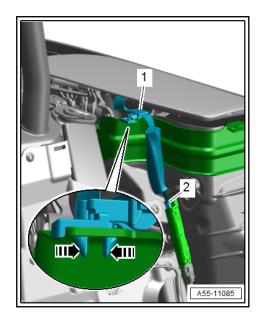
The film antennas are located in the convertible top frame flap on the left and right.

Removing and installing on the left and right sides are the same.

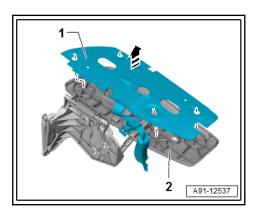
Removing

- Open the convertible top.
- Remove the rear panel cover. Refer to ⇒ Body Interior; Rep. Gr. 70; Vehicle Interior Trim Panels; Component Location Overview - Vehicle Interior Trim Panels.
- Disconnect the connector -2-.

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- Release the retainer in direction of -arrows-.
- Free up the connection for the film antenna.
- Remove the retaining plate for the convertible top frame flap. Refer to ⇒ Body Exterior; Rep. Gr. 61; Convertible Top; Overview - Convertible Top.
- Remove the film antenna -1- from the convertible top frame flap -2- in the direction of -arrow-.



Installing

Install in the reverse order of removal while noting the following:

Install the film antenna without kinks in the convertible top frame flap, at the same time pay attention to the tabs on the convertible top frame flap.



4 **Telephone System**

- ⇒ -4.1 Telephone", page 51
- ⇒ L4.2 ocation Overview Telephone System", page 60
- ⇒ -4.3 Microphone Unit", page 61
- ⇒ M4.4 icrophone Unit in Front Roof ModuleR164, Removing and Installing", page 65
- ⇒ B4.5 elt Microphone Control Module, Removing and Installing", page 66
- ⇒ C4.6 ellular Telephone AmplifierR86, Removing and Installing", page 67
- ⇒ T4.7 elephone BaseplateR126, Removing and Installing", page 69

4.1 Overview - Telephone

- ⇒ -4.1.1 Telephone, Bluetooth Hands-Free Calling, 9ZX", page 51
- ⇒ -4.1.2 Telephone, Audi Phone Box, 9ZE", page 54
- ⇒ -4.1.3 Telephone, Audi phone box light (9ZV)", page 57

4.1.1 Overview - Telephone, Bluetooth Hands-Free Calling, 9ZX

The Information Electronics Control Module 1 -J794- is installed and is used for hands-free calling.

The connection to the Cellulard Telephone: PR54- takes place via urposes, in part or in whole, is not Bluetooth. The Bluetooth Antenna -R152- is integrated in the snot guarantee or accept any liability Information Electronics Control Module 1-J794-.

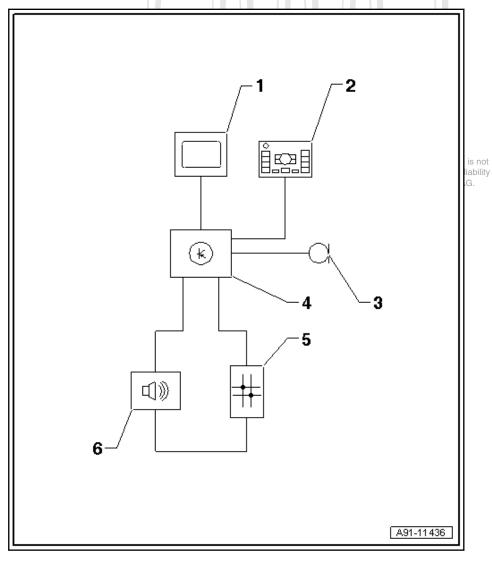
Operation is performed via Multimedia Control Head -E380- or via Cellular Telephone -R54-.

The Microphone Unit in Front Roof Module -R164- with the Telephone Microphone -R38- is installed in the Front Roof Module -WX3-. Also, seat belt microphones and the Seat Belt Microphone Control Module -J886- are installed on the Roadster.

An LTE module can also be installed in the Information Electronics Control Module 1 -J794- for an Internet connection (Audi connect, EL3).

9ZX - Bluetooth Hands-Free Calling

- 1 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 2 Multimedia System Control Head -E380- in the Center Console
- 3 Telephone Microphone -R38-, Component of the Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 4 Information Electronics Control Module 1 -J794- with Bluetooth Antenna -R152- in the Glove Compartment
- 5 Data Bus On Board Diagnostic Interface -J533- Behind the Driver Side Instrument Panel
- 6 Digital Sound System Control Module -J525- under the Left Front Seat



Antennas

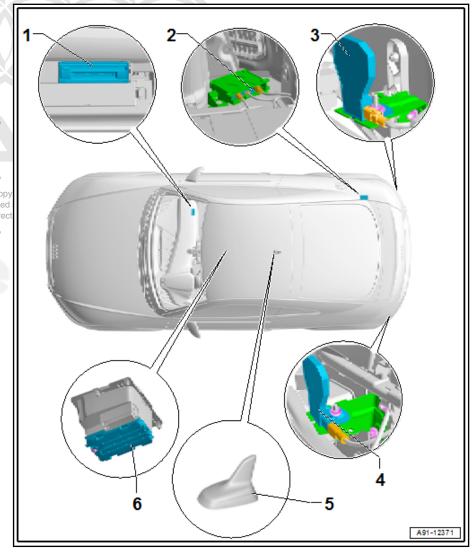
9ZX - Bluetooth hands-free calling without Audi connect EL0:

- ◆ There are no antennas installed.
- 9ZX Bluetooth hands-free calling with Audi connect EL3:
- No antenna is installed for the telephone function.
- The LTE Antenna 1 -R297- and the LTE Antenna 2 -R306- is installed for data transmission.

Overview Antenna, Coupe

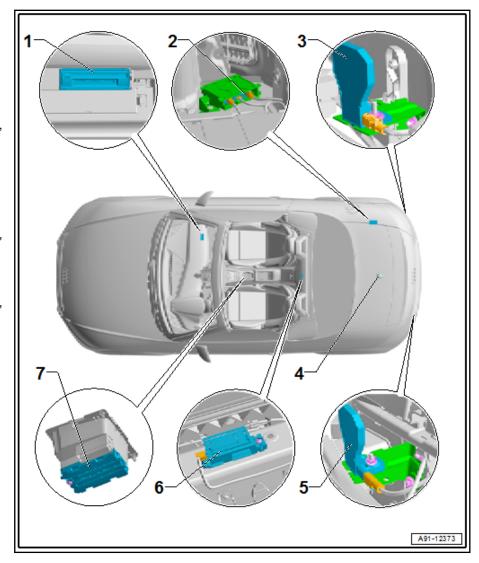


- ☐ In the glove compartment
- 2 Not Installed
- 3 Right Bumper Antenna
 - □ LTE Antenna 1 -R297-, ER3 and EL3
- 4 Left Bumper Antenna
 - ☐ LTE Antenna 2 -R306-, EL3
 Protected by copyright. Cop
- 5 Roof Antenna R216 authorised
 - □ LTE Antenna 1 -R297-, ER1/ER2 and EL3
- 6 Not Installed



Antenna Overview, Roadster

- In the glove compartment
- 2 Not Installed
- 3 Right Bumper Antenna
 - □ LTE Antenna 1 -R297-, ER3 and EL3
- 4 Satellite Tuner Antenna R172-
 - ☐ ER3 and QV3
- 5 Left Bumper Antenna
 - □ LTE Antenna 2 -R306-, EL3
- 6 Rear Panel/Rollover Support Antenna
 - □ LTE Antenna 1 -R297-, ER1/ER2 and EL3
- 7 Not Installed



Antenna, removing and installing. Refer to ⇒ L3.2 ocation Overview - Antenna Systems", page 33.

Notes on Bluetooth technology

A standardized radio connection is used for data transfer between the Information Electronics Control Module 1 -J794- and Cellular Telephone -R54- - Bluetooth Technology. The range of the radio connection is approximately 10 m (32.8 feet).

4.1.2 Overview - Telephone, Audi Phone Box, 9ZE

The Information Electronics Control Module 1 -J794- is installed and is used for hands-free calling.

The connection to the Cellular Telephone R54stakes place via not Bluetooth The Bluetooth Antenna R452sis integrated in the liability Information Electronics Control Module 4 49794L Copyright by AUDI AG.

Operation is performed via Multimedia Control Head -E380- or via Cellular Telephone -R54-.

The Microphone Unit in Front Roof Module -R164- with the Telephone Microphone -R38- is installed in the Front Roof Module -WX3-. Also, seat belt microphones and the Seat Belt Microphone Control Module -J886- are installed on the Roadster.



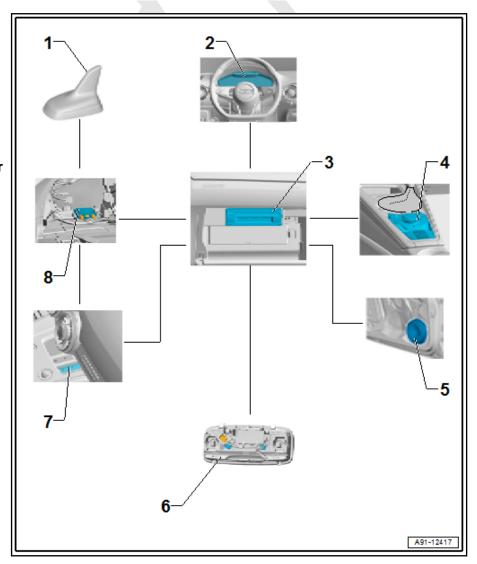
The Telephone Baseplate -R126- (Audi phone box) is installed in the front center console storage compartment with a pairing antenna. The Telephone Baseplate -R126- from MY 2017 is also equipped with a module for wireless charging of the corresponding Cellular Telephone -R54-.

The Telephone Antenna -R65- for phone function is connected through the Cellular Telephone Amplifier -R86- to the Telephone Baseplate -R126-.

An LTE module can also be installed in the Information Electronics Control Module 1 -J794- for an Internet connection (Audi connect, EL3).

9ZE - Audi Phone Box

- 1 Telephone Antenna -R65-
- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Information Electronics Control Module 1 -J794- with Bluetooth Antenna -R152- in the Glove Compartment
- 4 Multimedia System Control Head -E380- in the Center Console
- 5 Sound Systems
- 6 Telephone Microphone -R38-, Component of the Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 7 Telephone Baseplate -R126- inside the Center Console Storage Compartment
- 8 Cellular Telephone Amplifier -R86- behind the Right Luggage Compartment Trim Panel



Antennas

9ZE - Audi phone box without Audi connect EL0:

- The Telephone Antenna -R65- in installed for phone function.
- There are no LTE antennas installed for data transmission.

9ZE - Audi phone box with Audi connect EL3:

- The Telephone Antenna -R65- in installed for phone function.
- The LTE Antenna 1 -R297- and the LTE Antenna 2 -R306- is installed for data transmission.

Overview Antenna, Coupe

1 - Information Electronics Control Module 1 -J794-

□ In the glove compartment

2 - Cellular Telephone Amplifier -R86-

3 - Right Bumper Antenna

- ☐ Telephone Antenna -R65-, ER1/ER2 and EL3 as well as ER3 and EL3 and 9ZE
- □ LTE Antenna 2 -R306-, ER3 and EL3 and 9ZV/9ZX

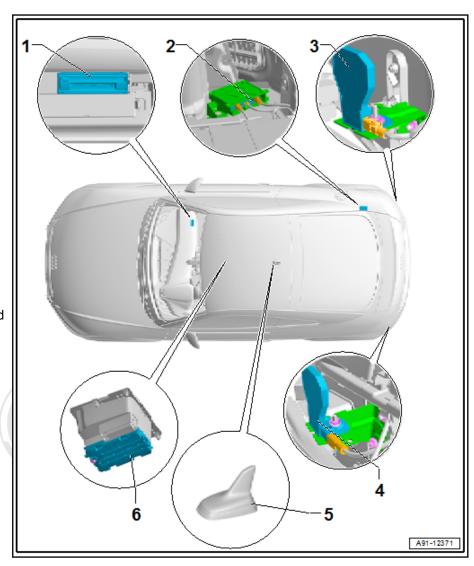
4 - Left Bumper Antenna

- □ LTE Antenna 2 -R306-, EL3 and ER3 and 9ZE
- ☐ LTE Antenna 1 -R297-ER1/ER2/ER5/ER6 and EL3 as well as ER3 and EL3 and 9ZV/9ZX

5 - Roof Antenna -R216-

- ☐ Telephone Antenna -R65-, EL0
- ☐ LTE Antenna 1 -R297-, ER3 and EL3
- ☐ LTE Antenna 2 -R306-, ER1/ER2 and EL3

6 - Telephone Baseplate -R126-



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- In the glove compart-
- 2 Cellular Telephone Amplifier -R86-

3 - Right Bumper Antenna

- Telephone Antenna -R65-, ER1/ER2 and
- LTE Antenna 2 -R306-, ER3 and EL3
- 4 Satellite Tuner Antenna -R172-
 - ☐ ER3 and QV3

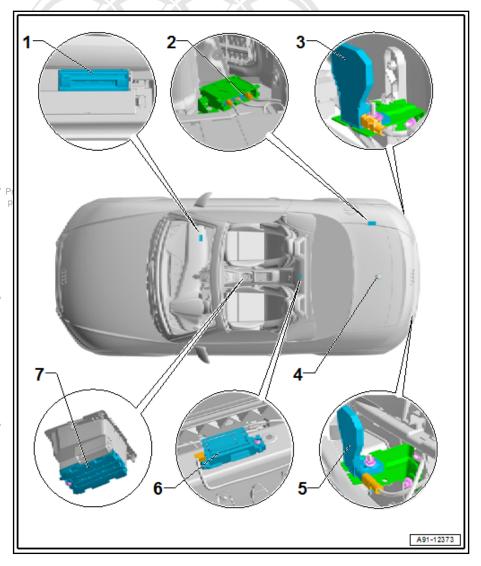
5 - Left Bumper Antenna

□ LTE Antenna 1 -R297-, EL3

6 - Rear Panel/Rollover Support Antenna

- Telephone Antenna -R65-, ER1/ER2 and EL0 as well as ER3 and EL0/EL3
- □ LTE Antenna 2 -R306-, ER1/ER2 and EL3

7 - Telephone Baseplate -R126-



Antenna, removing and installing. Refer to ⇒ L3.2 ocation Overview - Antenna Systems", page 33

Notes on Bluetooth technology

A standardized radio connection is used for data transfer between the Information Electronics Control Module 1 -J794- and Cellular Telephone -R54- - Bluetooth Technology. The range of the radio connection is approximately 10 m (32.8 feet).

Overview - Telephone, Audi phone box 4.1.3 light (9ZV)

The Information Electronics Control Module 1 -J794- is installed and is used for hands-free calling.

The connection to the Cellular Telephone -R54- takes place via Bluetooth. The Bluetooth Antenna -R152- is integrated in the Information Electronics Control Module 1 -J794-.

Operation is performed via Multimedia Control Head -E380- or via Cellular Telephone -R54-.

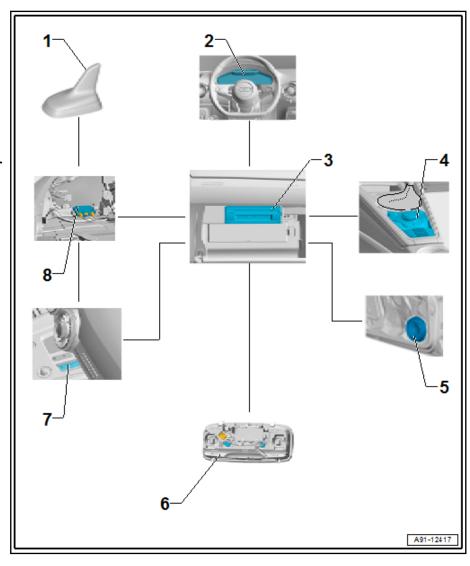
The Microphone Unit in Front Roof Module -R164- with the Telephone Microphone -R38- is installed in the Front Roof Module -WX3-. Also, seat belt microphones and the Seat Belt Microphone Control Module -J886- are installed on the Roadster.

The Telephone Baseplate -R126- (Audi phone box light) is installed in the front center console storage compartment. The Telephone Baseplate -R126- is exclusively equipped with a module for wireless charging of the corresponding Cellular Telephone -R54-.

An LTE module can also be installed in the Information Electronics Control Module 1 -J794- for an Internet connection (Audi connect, EL3).

9ZE - Audi Phone Box

- 1 Telephone Antenna -R65-
- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Information Electronics Control Module 1 -J794- with Bluetooth Antenna -R152- in the Glove Compartment
- 4 Multimedia System Control Head -E380- in the Center Console
- 5 Sound Systems
- 6 Telephone Microphone -R38-, Component of the Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 7 Telephone Baseplate -R126- inside the Center Console Storage Compartment
- 8 Not Installed



Antennas

9ZV - Audi phone box light without Audi connect EL0:

♦ There are no antennas installed.

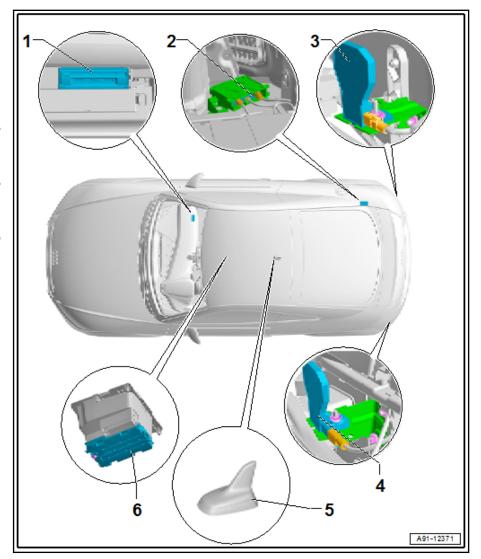
9ZV - Audi phone box light with Audi connect EL3:

- No antenna is installed for the telephone function.
- The LTE Antenna 1 -R297- and the LTE Antenna 2 -R306- is installed for data transmission.

Overview Antenna, Coupe



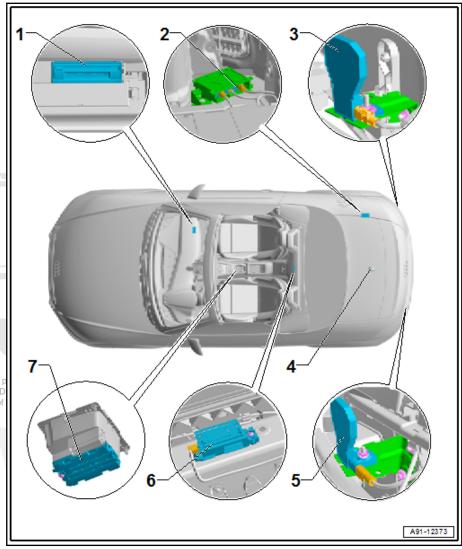
- ☐ In the glove compartment
- 2 Not Installed
- 3 Right Bumper Antenna
 - ☐ LTE Antenna 1 -R297-, ER3 and EL3
- 4 Left Bumper Antenna
 - ☐ LTE Antenna 2 -R306-, EL3
- 5 Roof Antenna -R216-
 - □ LTE Antenna 1 -R297-, ER1/ER2 and EL3
- 6 Telephone Baseplate R126-



Antenna Overview, Roadster

- □ In the glove compartment
- 2 Not Installed
- 3 Right Bumper Antenna
 - ☐ LTE Antenna 1 -R297-, ER3 and EL3
- 4 Satellite Tuner Antenna -R172-
 - ER3 and QV3
- 5 Left Bumper Antenna
 - ☐ LTE Antenna 2 -R306-,
- 6 Rear Panel/Rollover Support Antenna
 - ☐ LTE Antenna 1 -R297-, ER1/ER2 and EL3
- 7 Telephone Baseplate -R126-

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Antenna, removing and installing. Refer to <u>⇒ L3.2 ocation Over-</u> view - Antenna Systems", page 33.

Notes on Bluetooth technology

A standardized radio connection is used for data transfer between the Information Electronics Control Module 1 -J794- and Cellular Telephone -R54- - Bluetooth Technology. The range of the radio connection is approximately 10 m (32.8 feet).

4.2 Component Location Overview - Telephone System



Note

The component locations are shown on a Coupe. The component locations for the Roadster are the same.



- In the glove compartment
- Removing and Installing. Refer to ⇒ 11.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8

2 - Bracket

For vehicles with TV-Tuner -R78-, QU1/QV1

3 - Cellular Telephone Amplifier -R86-

4 - Bracket

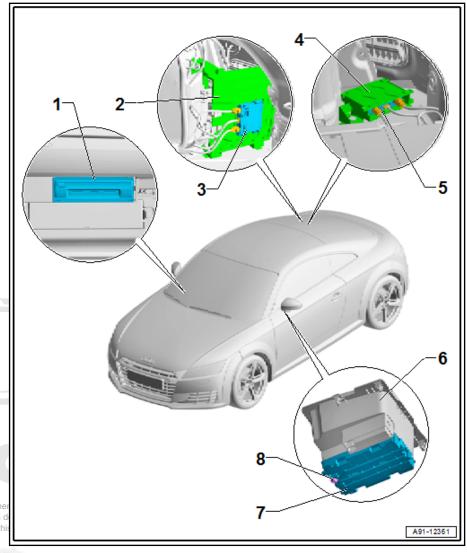
For vehicles without TV Tuner -R78-, QV0/QV3

5 - Cellular Telephone Amplifier -R86-

- Behind the right luggage compartment trim panel
- Removing and Installing. Refer to ⇒ C4.6 el-Iular Telephone AmplifierR86, Removing and Installing", page 67

6 - Center Console Storage Compartment

Removing and instal-Protected by coling t. Refere to povBodyommo permitted unles interior; dRepUDG 6.6891 AG with respect Center Console, Overview - Center Console.



7 - Telephone Baseplate -R126-

- □ In the center console storage compartment
- Removing and Installing. Refer to ⇒ T4.7 elephone BaseplateR126, Removing and Installing", page

8 - Bolt

□ 2 Nm

4.3 Overview - Microphone Unit

⇒ -4.3.1 Microphone Unit, Coupe", page 61

⇒ -4.3.2 Microphone Unit, Roadster", page 63

4.3.1 Overview - Microphone Unit, Coupe

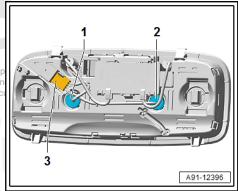
The Microphone Unit in Front Roof Module -R164- is installed in the Front Roof Module -WX3-. Up to three microphones may be installed, depending on the equipment.

One microphone (Interior Microphone -R74-) is connected directly to the Digital Sound System Control Module -J525-. The other microphone (Telephone Microphone -R38-) is connected to the Information Electronics Control Module 1 -J794-.

The Microphone Unit In Front Roof Module -R164- in the Front Roof Module -WX3- can only be replaced as a complete unit. It is not possible to replace individual microphones (Interior Microphone -R74- or Telephone Microphone -R38-).

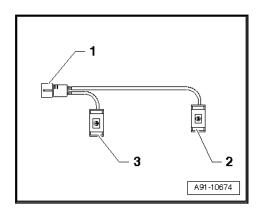
Microphone Unit in Front Roof Module -R164-

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- Interior Microphone -R74- Black, to the Digital Sound System Control Module -J525-
- Telephone Microphone -R38- Gray to the Information 2 -Electronics Control Module 1 -J794-
- 4-Pin Connector -T4-

Connector Assignment



1 - 4-Pin Connector -T4-

- Microphone 1 (Telephone Microphone -R38-) to the Information Electronics Control Module 1 -J794-
- 2 -Microphone 1 (Telephone Microphone -R38-) to the Information Electronics Control Module 1 -J794-
- 3 -Microphone 2 (Interior Microphone -R74-) to the Digital Sound System Control Module -J525-
- Microphone 2 (Interior Microphone -R74-) to the Digital Sound System Control Module -J525-
- 2 Microphone 1, Telephone Microphone -R38-
- 3 Microphone 2, Interior Microphone -R74-

Removing and installing, Microphone Unit in Front Roof Module -R164-. Refer to <u>⇒ M4.4 icrophone Unit in Front Roof Modu-</u> <u>leR164</u>, <u>Removing and Installing</u>", page 65.



4.3.2 Overview - Microphone Unit, Roadster

The microphone unit is comprised of the Microphone Unit in Front Roof Module -R164- and the Seat Belt Microphone Control Module -J886- with the seat belt microphone.

The Microphone Unit in Front Roof Module -R164- is installed in the Front Roof Module -WX3-. Up to three microphones may be installed, depending on the equipment.

One microphone (Interior Microphone -R74-) is connected directly to the Digital Sound System Control Module -J525-. The other microphone (Telephone Microphone -R38-) is connected to the Seat Belt Microphone Control Module -J886-.

The Microphone Unit In Front Roof Module -R164- in the Front Roof Module -WX3- can only be replaced as a complete unit. It is not possible to replace individual microphones (Interior Microphone -R74- or Telephone Microphone -R38-).

1 - Microphone Unit in Front Roof Module -R164-

- Connector Assignment. Refer to ⇒ Fig. "" Mi- crophone Unit in Front Roof Module -R164- ' <u>page 63</u> .
- Removing and Installing. Refer to ⇒ M4.4 icrophone Unit in Front Roof ModuleR164, Removing and Installing", page 65.

2 - Right Seat Belt Microphones

- Cannot be replaced separately
- Refer to ⇒ Body Interior; Rep. Gr. 69; Seat Belts; Front Three-Point Seat Belt. Removing and Installing.

3 - Left Seat Belt Microphones

- Cannot be replaced by copy separately with respect to
- Refer to ⇒ Body Interior; Rep. Gr. 69; Seat Belts; Front Three-Point Seat Belt, Removing and Installing.

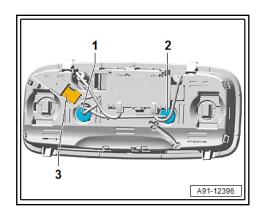
4 - Bracket

5 - Seat Belt Microphone Control Module -J886-

- Under the center console
- Removing and Installing. Refer to \Rightarrow B4.5 elt Microphone Control Module, Removing and Installing", page 66.

A91-12369

Microphone Unit in Front Roof Module -R164-



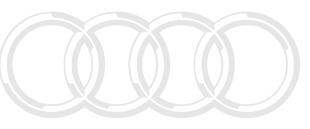
- Interior Microphone -R74- Black, to the Digital Sound System Control Module -J525-
- 2 -Telephone Microphone -R38- Gray, to the Seat Belt Microphone Control Module -J886-
- 4-Pin Connector -T4-

Connector Assignment. Refer to <u>⇒ Fig. ""Connector Assign-</u> ment"", page 62.

Removing and Installing. Refer to <u>⇒ M4.4 icrophone Unit in</u> Front Roof ModuleR164, Removing and Installing", page 65

The Seat Belt Microphone Control Module -J886- is located under the center console. The seat belt microphones and the Telephone Microphone -R38- are connected to the Seat Belt Microphone Control Module -J886-.

The Seat Belt Microphone Control Module -J886- evaluates the signals and transmits the best signal to the Information Electronics Control Module 1 -J794-.



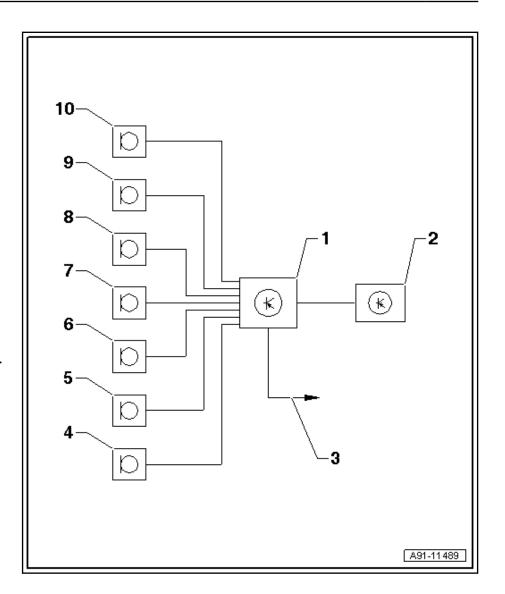


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- 1 Seat Belt Microphone Control Module -J886-
- 2 Information Electronics Control Module 1 -J794-
- 3 CAN bus. Infotainment
- 4 Driver Microphone 1 -R224-
- 5 Driver Microphone 2 -R225-
- 6 Driver Microphone 3 -R226-
- 7 Telephone Microphone -R38-, Microphone Unit in Front Roof Module -R164-
- 8 Front Passenger Microphone 1 -R227-
- 9 Front Passenger Microphone 2 -R228-
- 10 Front Passenger Microphone 3 -R229-

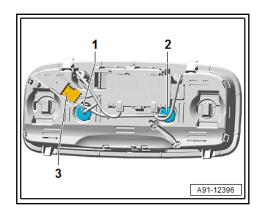


4.4 Microphone Unit in Front Roof Module -R164-, Removing and Installing

The Microphone Unit In Front Roof Module -R164- can only be replaced as a complete unit. It is not possible to replace individual microphones (Interior Microphone -R74- or Telephone Microphone -R38-).

- Turn off the ignition and all electrical equipment.
- Remove the Front Roof Module -WX3-. Refer to ⇒ Electrical Equipment; Rep. Gr. 96; Controls; Front Interior Lamp/Reading Lamp, Removing and Installing.
- Unclip the connector -3- from the holder in the Front Roof Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability Module -WX3-. with respect to the correctness of information in this document. Copyright by AUDI AG.





Prv the individual microphones -1 and 2- out of the housing in the Front Roof Module -WX3-.

Installing

Install in reverse order of removal.

4.5 Seat Belt Microphone Control Module, Removing and Installing

The Seat Belt Microphone Control Module -J886- is located under the center console near the Multimedia System Control Head -E380-.



Note

If replacing the control module, select the "Replace control module" function for the corresponding control module on the ⇒ Vehicle diagnostic tester.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the center console. Refer to ⇒ Body Interior; Rep. Gr. 68; Center Console; Center Console, Removing and In-Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

First the Seat Belt Microphone Control Module by 886-cwith the Seat Belt Microphone C bracket must be removed.

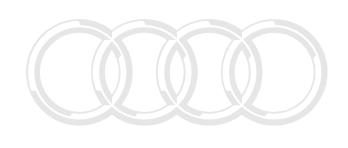


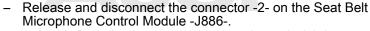
Note

For a better view the Multimedia System Control Head -E380- is visible in the illustration.

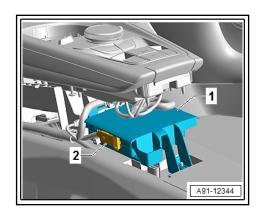
Remove the bracket with the Seat Belt Microphone Control Module -J886- -1- upward from the securing bracket and threaded pin.

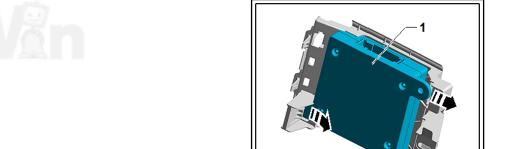
A91-12343





rrotected by copyright. Copyring for private or commercial purposes, in part or in whole, is not permitted Remove, the Seab Belt Microphone, Control Module ⊩J886- -1with remethe idirections of warrows from the bracketint by AUDI AG.





Installing

Install in reverse order of removal.

Cellular Telephone Amplifier -R86-, 4.6 Removing and Installing

⇒ C4.6.1 ellular Telephone AmplifierR86, Removing and Installing, Vehicles without TV TunerR78", page 67

⇒ C4.6.2 ellular Telephone AmplifierR86, Removing and Installing, Vehicles with TV TunerR78 ", page 68

Cellular Telephone Amplifier -R86-, 4.6.1 Removing and Installing, Vehicles without TV Tuner -R78-

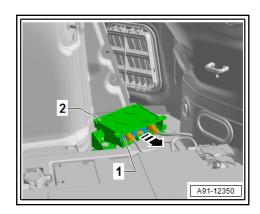
The Cellular Telephone Amplifier -R86- -1- is behind the right luggage compartment side trim panel.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the right luggage compartment side trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Luggage Compartment Side Trim Panel, Removing and Installing.

The Cellular Telephone Amplifier -R86- -1- is locked into place in the bracket -2-.





- Release and disconnect the connectors from the Cellular Telephone Amplifier -R86- -1-.
- Press the catch on the bracket and remove the Cellular Telephone Amplifier -R86- -1- in the direction of -arrow- from the bracket -2-,

Installing

Install in reverse order of removal.

4.6.2 Cellular Telephone Amplifier -R86-, Removing and Installing, Vehicles with TV Tuner -R78-

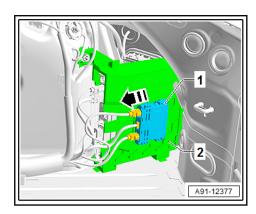
The Cellular Telephone Amplifier -R86- -1- is behind the right luggage compartment side trim panel.

Removing

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- Turn off the ignition and all electrical equipment document. Copyright by AUDI AG.
- Remove the right luggage compartment side trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Luggage Compartment Side Trim Panel, Removing and Installing.

The Cellular Telephone Amplifier -R86- -1- is locked into place on the bracket -2-.



- Release and disconnect the connectors from the Cellular Telephone Amplifier -R86- -1-.
- Press the catch on the bracket and remove the Cellular Telephone Amplifier -R86- -1- in the direction of -arrow- from the bracket -2-.

Installing

Install in reverse order of removal.



4.7 Telephone Baseplate -R126-, Removing and Installing

⇒ T4.7.1 elephone BaseplateR126, Removing and Installing, Versions without Wireless Charging", page 69

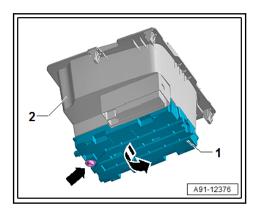
⇒ T4.7.2 elephone BaseplateR126, Removing and Installing, Versions with Wireless Charging", page 69

4.7.1 Telephone Baseplate -R126-, Removing and Installing, Versions without Wireless Charging

The Telephone Baseplate -R126- is located under the center console storage compartment.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the front center console storage compartment. Refer to ⇒ Body Interior; Rep. Gr. 68; Center Console; Overview - Center Console.
- Remove, the screw in direction of marrow from the Telephone t Baseplate SR126 sed by AUDI AG. AUDI AG does not guarantee or accept any liability rrectness of information in this document. Copyright by AUDI AG.



Pivot the Telephone Baseplate -R126- -1- out of the hook in the direction of -arrow- and remove it from the storage compartment -2-.

Installing

Install in reverse order of removal.

Tightening Specifications

- Refer to ⇒ L4.2 ocation Overview Telephone System", <u>page 60</u>
- 4.7.2 Telephone Baseplate -R126-, Removing and Installing, Versions with Wireless Charging

Special tools and workshop equipment required

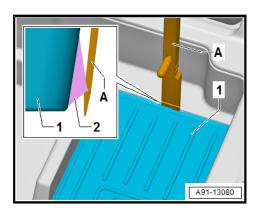
Removal Tool for Coupling - Aerial -T40388-

The Telephone Baseplate -R126- is located in the center console storage compartment.

Removing

Turn off the ignition and all electrical equipment.

The Telephone Baseplate -R126- -1- is clipped into the storage compartment.



The rubber lip on the surface on which the Removal Tool for Coupling - Aerial -T40388- was inserted must be slightly pressed out.

- Using the Removal Tool for Coupling Aerial -T40388A- -A-, carefully push the rubber lip on the Telephone Baseplate
 -R126- to the side and guide in the Removal Tool for Coupling - Aerial -T40388- vertically from above as shown.
- The catch -2- is released and engages in the groove on the Removal Tool for Coupling - Aerial -T40388- -A-.
- Pull the Removal Tool for Coupling Aerial -T40388- -A-back out vertically upward and remove the Telephone Baseplate -R126- -1- from the storage compartment.
- The Telephone Baseplate -R126- is clipped on the opposite side. Tilt the Telephone Baseplate -R126- -1- out of the storage compartment.
- Release and disconnect the connectors from the Telephone Baseplate -R126-.

Installing

Install in reverse order of removal.

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5 **Navigation System**

- ⇒ -5.1 Navigation System", page 71
- ⇒ L5.2 ocation Overview Navigation System", page 71
- ⇒ C5.3 ard Reader Control Module, Removing and Installing", page 72

5.1 Overview - Navigation System

The navigation system is integrated in the Information Electronics Control Module 1 -J794-.

There are the following versions:

- Navigation preparation, 7UH. Refer to \Rightarrow -1.1.2 Infotainment System, MMI Radio with Connectivity Package (I8E)", page
- MMI Navigation plus, 7UG. Refer to ⇒ -1.1.3 Infotainment System, MMI Navigation Plus, I8H", page 4

For the navigation package (7UH), all components for navigation are installed in the vehicle (Information Electronics Control Module 1 -J794- and GPS Antenna -R50-). The software-side activation in Information Electronics Control Module 1 -J794-.

For the MMI navigation plus (7UG), the navigation data is stored on an internal hard drive disc.

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DI AG does not guarantee or accept any liability Component Location Overviewith Avigation System in this document. Copyright by AUDI AG. 5.2



Note

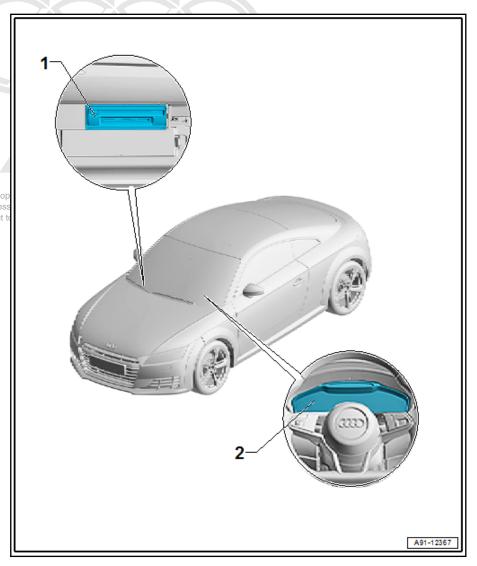
The component locations are shown on a Coupe. The component locations for the Roadster are the same.

1 - Information Electronics Control Module 1 -J794-

- In the glove compartment
- Removing and Installing. Refer to ⇒ 11.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8.

2 - Instrument Cluster Control Module -J285-

- ☐ Instrument clusteridismle play
- □ Removing and Installing. Refer to ⇒ S1.3 ystem Display, Removing and Installing", page 7

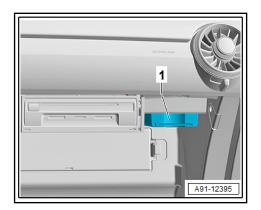


Chip Card Reader Control Module, Re-5.3 moving and Installing

The Chip Card Reader Control Module -J676- is located inside the glove compartment.

Removing

- Turn off the ignition and all electrical equipment.
- Open the glove compartment.
- Remove the chip card.
- Slide the Chip Card Reader Control Module -J676- -1- back until it can be removed from the trim.

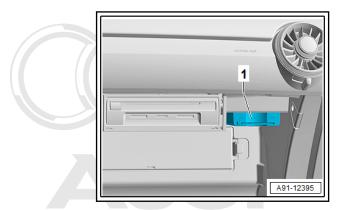


Release and disconnect the connectors from the Chip Card Reader Control Module -J676- -1-.

Installing

Install in the reverse order of removal while noting the following:

Make sure that all of the retaining tabs on the Chip Card Reader Control Module -J676- -1- engage in the trim.



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6 TV System (Not for North America Market)

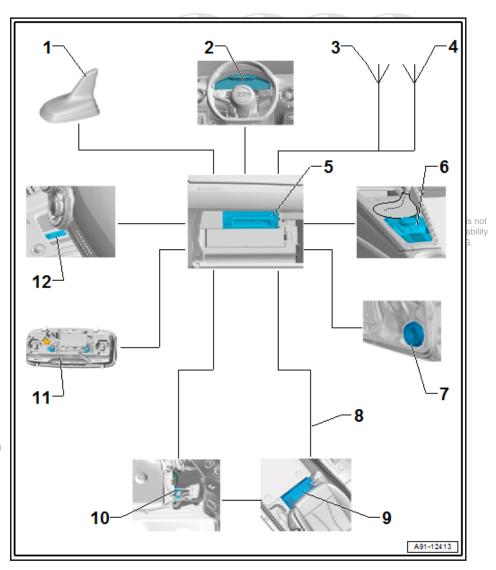
- ⇒ -6.1 TV System (Not for North America Market)", page 74
- ⇒ L6.2 ocation Overview TV System (Not for North America Market)", page 75
- ⇒ T6.3 uner, Removing and Installing (Not for North America Market)", page 75

6.1 Overview - TV System (Not for North America Market)

The TV system (QU1/QV1) is part of the MMI Infotainment system.

TV Tuner -R78- is connected via the MOST-Bus to the other components of the Infotainment system. Operation is performed via the Multimedia System Control Head -E380-.

- 1 Roof Antenna -R216-
- 2 Instrument Cluster Control Module -J285-, Display in Instrument Cluster
- 3 Rear Window Antenna/Windshield Antenna
- 4 Bumper Antennas
- 5 Information Electronics Control Module 1 -J794- in the Glove Compartment
- 6 Multimedia System Control Head -E380- in the center console
- 7 Sound Systems
- 8 MOST Bus
- 9 Digital Sound System Control Module -J525- under the left front seat, 9VS
- 10 TV Tuner -R78- behind the Right Luggage Compartment Trim Panel, QU1/QV1
- 11 Microphone Unit in Front Roof Module -R164- in the Front Roof Module -WX3-
- 12 USB Distributor -R293- in the Center Console Storage Compartment





Component Location Overview - TV System (Not for North America Mar-6.2



Note

The component locations are shown on a Coupe. The component locations for the Roadster are the same.

1 - Information Electronics Control Module 1 -J794-

- In the glove compartment
- Removing and Installing. Refer to ⇒ 11.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8

2 - TV Tuner -R78-

- ☐ Behind the right luggage compartment side trim panel
- Removing and Installing. Refer to ⇒ T6.3 uner, Removing and Installing (Not for North America Mar-<u>ket)", page 75</u>

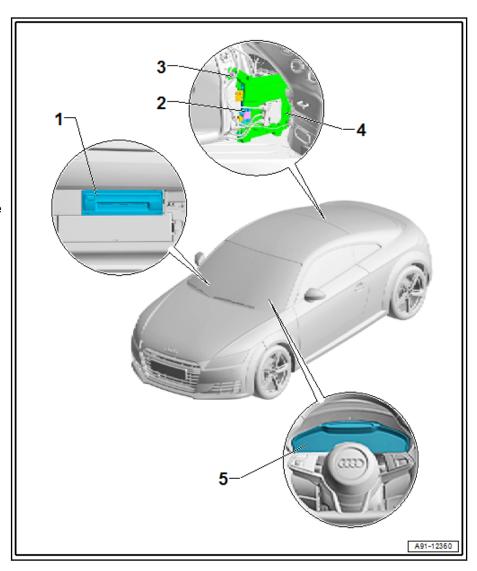
3 - Nut

□ 3 Nm

4 - Bracket

5 - Instrument Cluster Control Module -J285-

- ☐ Instrument cluster display
- Removing and Installing. Refer to ⇒ S1.3 ystem Display, Removing and Installing", page 7



6.3 TV Tuner, Removing and Installing (Not for North America Market)

Special tools and workshop equipment required

Fiber-Optic Repair Set - Connector Protective Caps -VAS6223/9-.



The TV Tuner -R78- is located behind the right luggage compartment side trim panel.

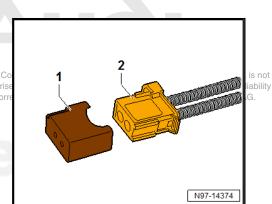


Note

If replacing the control module, select the "Replace control module" function for the corresponding control module on the ⇒ Vehicle diagnostic tester.

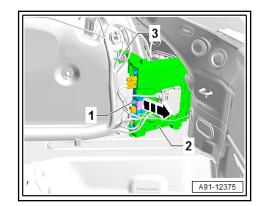
Removing

- Turn off the ignition and all electrical equipment.
- Remove the right luggage compartment side trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Luggage Compartment Side Trim Panel, Removing and Installing.
- Disconnect and remove all connectors from the TV Tuner -R78-.
- Insert the Fiber-Optic Repair Set Connector Protective Caps -VAS6223/9- -1- onto the MOST bus connector -2-.



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Press the catches -arrow- on the bracket -2- outward.



- Remove the TV Tuner -R78- -1- from the bracket -2-.
- If necessary, remove the nut -3- and then remove the bracket -2- from the body.

Installing

Install in reverse order of removal.

Tightening Specifications

◆ Refer to ⇒ L6.2 ocation Overview - TV System (Not for North America Market)", page 75

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7 Rearview Camera System

- ⇒ -7.1 Rearview Camera System", page 78
- ⇒ L7.2 ocation Overview Rearview Camera System", page 78
- ⇒ R7.3 earview CameraR189, Removing and Installing", page 79
- ⇒ C7.4 amera System Control ModuleJ772, Removing and Installing", page 80
- ⇒ C7.5 amera System, Calibrating", page 81

7.1 Overview - Rearview Camera System

The rearview camera system assists the driver while driving in reverse by providing the driver with an image of the traffic situation behind the vehicle via the Instrument Cluster Control Module -J285-.

The rearview camera system is switched on when engaging the reverse gear. The system can be activated manually by pressing the Parking Aid Button -E266- in the instrument panel (optional).

The rearview camera system consists of the following components:

- ♦ Rearview Camera -R189-
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 The Rearview Camera System Control Module 1772-4 is in-uthorised by AUDI AG. AUDI AG does not guarantee or accept any liability tegrated in the Rearview Camera -R189with respect to the correctness of information in this document. Copyright by AUDI AG.
- ◆ Information Electronics Control Module 1 -J794-
- Instrument Cluster Control Module -J285-, Display

Other control modules may be installed as optional equipment.

It is not permitted to install an auxiliary license plate for vehicles with rear view camera system as it could impair the function of the rear view camera system.

7.2 Component Location Overview - Rearview Camera System



Note

The component locations are shown on a Coupe. The component locations for the Roadster are the same.



1 - Information Electronics Control Module 1 -J794-

- In the glove compartment
- Removing and Installing. Refer to ⇒ 11.4 nformation Electronics Control Module 1J794, Removing and Installing", page 8

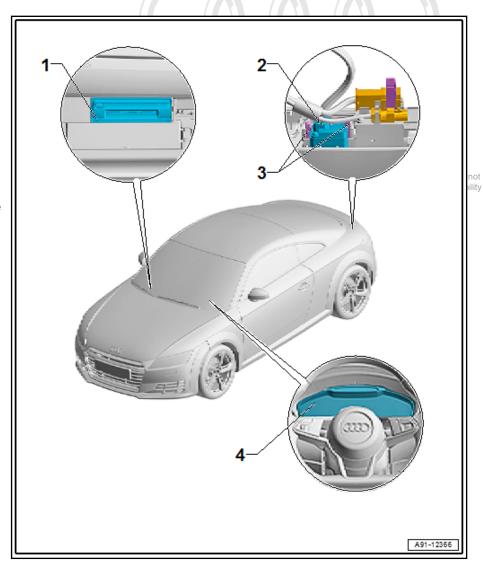
2 - Rearview Camera -R189-

- With Rearview Camera System Control Module -J772-
- □ Removing and Installing. Refer to ⇒ R7.3 earview CameraR189, Removing and Installing", page 79 .

3 - Retainers

4 - Instrument Cluster Control Module -J285-

- Instrument cluster display
- Removing and Installing. Refer to ⇒ S1.3 ystem Display, Removing and Installing", page 7

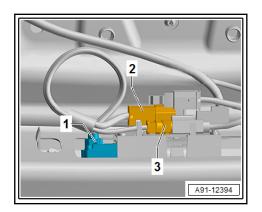


7.3 Rearview Camera -R189-, Removing and Installing

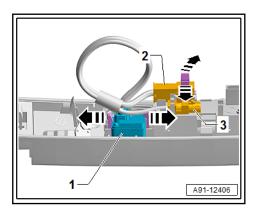
The Rearview Camera -R189- is installed in the rear lid handle button.

Removing

- Turn off the ignition and all electrical equipment.
- Remove the rear lid trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Overview - Lower Rear Lid Trim Panel.
- Unlock and disconnect the connectors -2 and 3-.



- Remove the grip piece. Refer to \Rightarrow Body Exterior; Rep. Gr. 55; Rear Lid; Overview - Rear Lid.
- Unclip the connectors -2 and 3-.



Release the retaining tabs from the grip piece in direction of -arrows- and remove the rearview camera.

Installing

Install in the reverse order of removal while noting the following:

Perform the calibration. Refer to ⇒ C7.5 amera System, Calibrating", page 81

7.4 Rearview Camera System Control Module -J772-, Removing and Installing

The Rearview Camera System Control Module -J772- is located in the Rearview Camera -R189- and cannot be replaced separately.



Note

If replacing the control module, select the "Replace control module function for the corresponding control module on the ⇒ Vehicle diagnostic tester.

- Removing and installing the Rearview Camera -R189-. Refer to ⇒ R7.3 earview CameraR189, Removing and Installing", <u>page 79</u>.
- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not Perform the calibrational Refers to mcGroSyamera. Systemp Galiguarantee or accept any liability brating", page 81. with respect to the correctness of information in this document. Copyright by AUDI AG.



7.5 Rearview Camera System, Calibrating

⇒ C7.5.1 alibration UnitVAS6350A, Installing and Aligning", page 81

⇒ R7.5.2 earview CameraR189, Calibrating", page 83

7.5.1 Calibration Unit -VAS6350A-, Installing and Aligning

After performing repair work on the vehicle, it may be necessary to re-calibrate the rearview camera system. In detail, this is the case after:

- ♦ Rearview Camera -R189- Removal and Installation
- ◆ Collision repairs on rear lid

Calibration Requirements

- ♦ The camera lens must be clean.
- ♦ The vehicle must be standing on a firm and level surface.
- ♦ There must be sufficient open space around the vehicle.
- ◆ The parking brake must be set.
- The steering wheel must be in the 0 position and the wheels must be straight.
- ◆ All doors and the rear lid must be closed.
- ♦ No one should be in the vehicle.
- ◆ The vehicle must not be loaded (curb weight).
- ♦ Before each calibration: turn on the ignition.

Special tools and workshop equipment required

◆ Calibration Unit -VAS6350A-



♦ ⇒ Vehicle diagnostic tester

The Calibration Unit -VAS6350A- consists of the following parts:

- Calibration Tool Wheel Center Mountings -VAS6350/1-
- Calibration Tool Spacing Laser -VAS6350/2-
- ◆ Calibration Tool Linear Laser -VAS6350/3-

Installed Calibration Unit -VAS6350A- Overview

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1 - Audi Rings in the Rear Lid

2 - Calibration Tool -Wheel Center Mountings -VAS6350/1-

3 - Right Angle Bracket

☐ Calibration Tool - Spacing Laser -VAS6350/2mount

4 - Level

- On the calibration board
- For checking the horizontal position

5 - Calibration Tool - Spacing Laser -VAS6350/2-

Refereto the > Owner's Manual for notes on the operation.

6 - Plastic Foot

- □ Three on underside of the calibration board
- Adjustable for aligning horizontal position of the calibration board

7 - Calibration Tool - Linear Laser -VAS6350/3-

- On the calibration board
- Switching on and off. Refer to the ⇒ Owner's Manual.

8 - Calibration Board

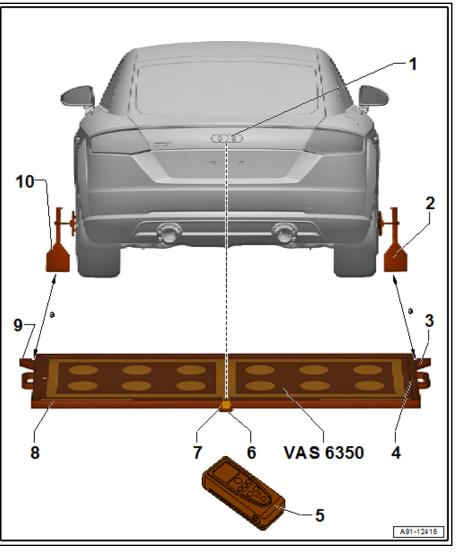
■ Between the mounts on the calibration board and the Calibration Tool - Wheel Center Mountings -VAS6350/1A- -dimension a-1.47 m (4.8 feet) through 1.90 m (6.2 feet).

9 - Left Angle Bracket

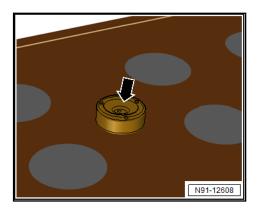
- ☐ Calibration Tool Spacing Laser -VAS6350/2- mount
- 10 Calibration Tool Wheel Center Mountings -VAS6350/1-

Calibration Board Orientation

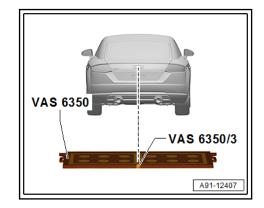
- Position the calibration platform behind the vehicle at a distance of 1.47 m to 1.90 m (4.8 feet to 6.2 feet) to the rear wheels, see -dimension a- in the overview illustration. Refer to \Rightarrow page 81.
- Bring the Calibration Unit -VAS6350A- into a horizontal posi-
- Twist the plastic feet under the calibration board so that the air bubble in the level is located exactly in the center of the indicator -arrow-.







- Wear "laser protective eyewear".
- Turn on the Calibration Tool Linear Laser -VAS6350/3A--1- on the Calibration Tool - VAS6350A-.



- Align the Calibration Tool -VAS6350A- so that the Calibration Tool - Linear Laser -VAS6350/3- -1- strikes the center of the brand emblem -2- on the vehicle rear.
- Check that the Audi rings are centered on the rear. Correct the laser beam accordingly.

Continue calibrating the Rearview Camera -R189-. Refer to ⇒ R7.5.2 earview CameraR189, Calibrating", page 83.

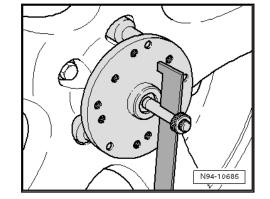
7.5.2 ted unles Rearview Camera - R189-1 and AUDITATION AUDITATION OF AU

- Establish the requirements. Refer to ⇒ page 81.
- Connect the ⇒ Vehicle diagnostic tester.

Calibration Tool - Wheel Center Mountings -VAS6350/1- installing

- Check which hole circle the rims have.
- Equip the Calibration Tool Wheel Center Mountings -VAS6350/1- appropriately.
- To do so, secure the three wheel bolt adapters in the hole circle to each Calibration Tool - Wheel Center Mountings -VAS6350/1-.
- Place the paddle on both Calibration Tool Wheel Center Mountings -VAS6350/1- and secure them using a clamping screw.
- Place the Calibration Tool Wheel Center Mountings -VAS6350/1- onto the wheel bolts on the rear wheels.

The Calibration Tool - Wheel Center Mountings -VAS6350/1-are positioned by the "O-rings" in the adapters and secured.





Note

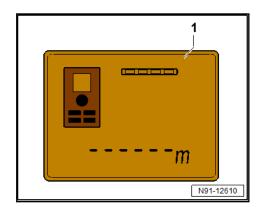
Attach the Calibration Tool - Wheel Center Mountings -VAS6350/1- onto the wheels so that any installed "anti-theft" wheel bolts are not connected to the Calibration Tool. Wheel whole is not Center Mountings with respect to the correctness of information in this document. Copyright by AUDI AG.

- Adjust the paddles with aid of lock bolts so that they move freely just above the floor. Check the paddles for ease of
- Install and align the Calibration Unit -VAS6350A-. Refer to ⇒ C7.5.1 alibration UnitVAS6350A, Installing and Aligning", page 81

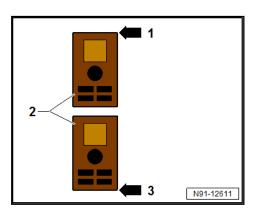
Distance Measurement

- Switch on the Calibration Tool - Spacing Laser -VAS6350/2-.

The following display appears -1-.

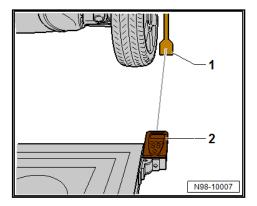


The display -2- shows how to position the Calibration Tool -Spacing Laser -VAS6350/2A-.





- -arrow 1-: position with front edge
- -arrow 3-: position with rear edge
- Hold the Calibration Tool Spacing Laser -VAS6350/2A- -2for the distance measurement on one side of the calibration board flush to the catch bracket, as shown.



- The Calibration Tool Spacing Laser -VAS6350/2A- -2- must lie firmly against the catch bracket.
- Push the measurement button briefly.

The laser switches on.

Make sure the "laser beam" for the distance measurement contacts the lower enlarged part of the measuring paddle -1-.

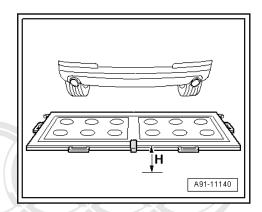
If that is not the case, then correct the measuring paddle -1accordingly, using the clamping screw on the Calibration Tool -Wheel Center Mounting -VAS6350/1A-.

- Use one hand to secure the Calibration Tool Spacing Laser -VAS6350/2- in the bracket on the Calibration Tool -VAS6350- while the laser beam is visible on the paddle.
- irposes, in part or in whole, is not Then press the measurement button for the distance measurantee or accept any liability urement briefly. with respect to the correctness of information in this document. Copyright by AUDI AG.
- Write down the value.
- Repeat this measurement on the other side of the Calibration Tool -VAS6350- in the same way for the rear wheel.
- The distance value must be the same on both sides.

If values are not identical:

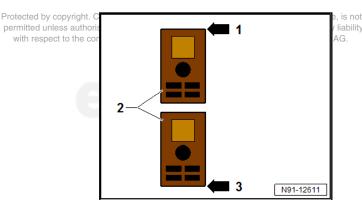
- If both measured values are not the same, then readjust the Calibration Tool -VAS6350A- correspondingly until the distance values are the same on both sides.
- Make sure the Calibration Tool Line Laser -VAS6350/3Astrikes the center above the brand emblem and that the level indicator remains centered. Adjust if necessary.

Measurement -dimension H-:



- Measure the height of the Calibration Unit -VAS6350A-, dimension -H- (top edge platform floor).
- Make sure the Calibration Tool Spacing Laser -VAS6350/2is set correctly (attached to the front edge).

The display -2- shows how to position the Calibration Tool - Spacing Laser -VAS6350/2A-.



- -arrow 1-: position with front edge
- ◆ -arrow 3-: position with rear edge
- Press the corresponding button.
- Note the measured distance from the upper edge of the Calibration Tool -VAS6350A- to the floor.
- Then use commercially available measuring tape to measure the height from the center of the rearview camera lens to the wheel contact surface.
- Mark the determined height.

The measured distance measurement, the height of the calibration device and the height of the center of the rearview camera lens must be entered in the Vehicle Diagnostic Tester in "mm".

Calibrating Procedure

The ⇒ Vehicle diagnostic tester is connected.

- Select the Diagnostic mode and start the diagnosis.
- Select the Test plan tab.
- Select the <u>Select individual test</u> button and select the following tree structure consecutively:
- Body
- ♦ Electrical system



- ♦ 01 OBD-capable systems
- ♦ 6C Rearview camera system control module J772
- ♦ 6C Rearview camera system control module, functions
- ♦ 6C Calibrating

From here, the \Rightarrow Vehicle diagnostic tester advances the calibration procedure forward.



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8 Multifunction Steering Wheel

- ⇒ 18.1 nformation Multifunction Steering Wheel", page 88
- ⇒ -8.2 Multifunction Steering Wheel", page 88
- ⇒ R8.3 ight Multifunction Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92
- ⇒ T8.4 iptronic Downshift Button on Steering WheelE439/Tiptronic Upshift Button on Steering WheelE438, Removing and Installing", page 96
- ⇒ A8.5 djustment ButtonE387/Access/Start Authorization ButtonE408 (Satellite Switch), Removing and Installing", page 97

General Information - Multifunction 8.1 Steering Wheel

The button is integrated in the steering wheel for easier operation of Infotainment, telephone and the navigation system. On Tiptronic, rocker switches are also installed on the left and right.

The Multifunction Steering Wheel Control Module -J453- (in the right button) reads out the information and transfers them over the LIN bus to the Steering Column Electronics Control Module -J527-. From the Steering Column Electronics Control Module -J527-, the information is transferred to the individual components via the CAN bus (comfort) and the Data Bus On Board Diagnostic Interface -J533-.

8.2 Overview - Multifunction Steering Wheel

- ⇒ -8.2.1 Multifunction Steering Wheel, Except TT RS ", page
- ⇒ -8.2.2 Multifunction Steering Wheel, Only TT RS ", page 90
- 8.2.1 Overview - Multifunction Steering Wheel, Except "TT RS"



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1 - Tiptronic Downshift Button on Steering Wheel -E439-

Removing and Installing. Refer to = T8.4 iptronic Downshift Button on Steering WheelE439/Tiptronic Upshift Button on Steering WheelE438 Removing and Installing", page 96

2 - Tiptronic Upshift Button on Steering Wheel -E438-

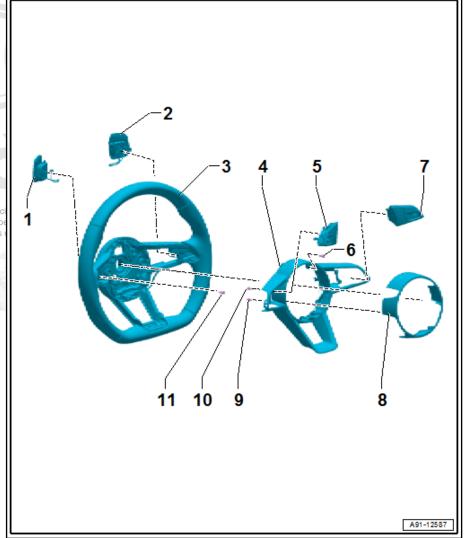
Removing and Instal-Protected by copling. Referitor te or commerce permitted unless T8h4isptronic Down PI AG do with respect to shift Button on Steer in this ing WheelE439/Tiptronic Upshift Button on Steering WheelE438, Removing and Instal-<u>ling", page 96</u> .

3 - 3-Spoke Steering Wheel

4 - Guide Ring

5 - Left Multifunction Buttons on Steering Wheel -E440-

Removing and Installing. Refer to R8.3 ight Multifunction Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Instal-<u>ling", page 92</u> .



6 - Bolt

- □ 2 Nm
- Guide ring retainer to steering wheel
- Quantity: 4

7 - Right Multifunction Buttons on Steering Wheel -E441-

Removing and Installing. Refer to ⇒ R8.3 ight Multifunction Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92.

8 - Cover Trim

9 - Bolt

- □ 1 Nm
- ☐ Cover plate retainer to guide ring
- Quantity: 4

10 - Bolt

- □ 1 Nm
- ☐ Multifunction buttons retainer in the steering wheel to guide ring
- Quantity: 2 on each side

11 - Bolt

- □ 0.5 Nm
- Steering wheel tiptronic switch retainer to steering wheel

☐ Quantity: 1 on each side

Overview - Multifunction Steering Wheel, Only "TT RS" 8.2.2



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1 - Tiptronic Downshift Button on Steering Wheel -E439-

Removing and Installing. Refer to T8.4 iptronic Downshift Button on Steering WheelE439/Tiptronic Upshift Button on Steering WheelE438, Removing and Installing", page 96

2 - Tiptronic Upshift Button on Steering Wheel -E438-

ProtRemoving and Instal private permitted wees authorised by AUDI AG mitted unless authorised by ADDI AG with especific the correctness of infor T8.4 iptronic Downshift Button on Steering WheelE439/Tiptronic Upshift Button on Steering WheelE438, Removing and Instal-<u>ling", page 96</u> .

3 - Steering Wheel

4 - Guide Ring

5 - Bolt

- □ 1 Nm
- Multifunction buttons retainer in the steering wheel to guide ring
- Quantity: 2 on each side

6 - Left Multifunction Buttons on Steering Wheel -E440-

□ Removing and Installing. Refer to ⇒ **R8.3 ight Multifunction**

Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92.

7 - Bolt

- □ 2 Nm
- Guide ring retainer to steering wheel
- Quantity: 4

8 - Bolt

- □ 0.5 Nm
- Secures the Damping Adjustment Button -E387-/ Access/Start Authorization Button -E408- to guide
- Quantity: 2 on each side

9 - Right Multifunction Buttons on Steering Wheel -E441-

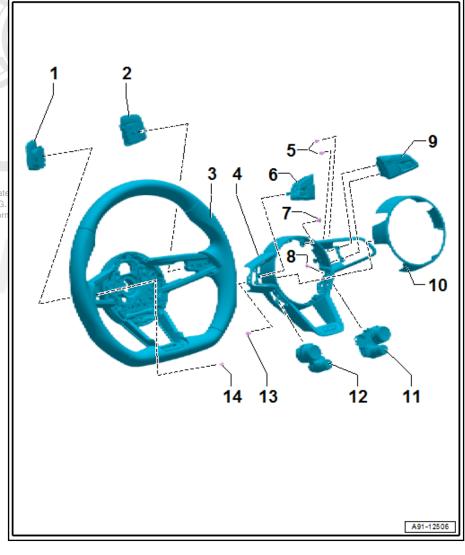
□ Removing and Installing. Refer to ⇒ R8.3 ight Multifunction Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92.

10 - Cover Trim

11 - Access/Start Authorization Button -E408- (satellite switch)

Removing and Installing. Refer to <u>⇒ A8.5 djustment ButtonE387/Access/Start Authorization But-</u> tonE408 (Satellite Switch), Removing and Installing", page 97

12 - Damping Adjustment Button -E387- (satellite switch)



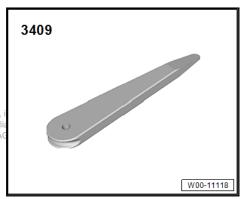
- □ Removing and Installing. Refer to ⇒ A8.5 djustment ButtonE387/Access/Start Authorization ButtonE408 (Satellite Switch), Removing and Installing", page 97.
- 13 Bolt
 - □ 1 Nm
 - Cover plate retainer to guide ring
 - Quantity: 4
- 14 Bolt
 - □ 0.5 Nm
 - ☐ Steering wheel tiptronic switch retainer to steering wheel
 - ☐ Quantity: 1 on each side
- 8.3 Right Multifunction Buttons on Steering Wheel -E441-/Left Multifunction
 Buttons on Steering Wheel -E440-, Removing and Installing

Special tools and workshop equipment required

◆ Trim Removal Wedge -3409-



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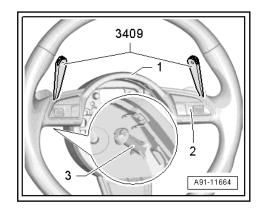




Note

Removing and installing the Right Multifunction Buttons on Steering Wheel -E441-/Left Multifunction Buttons on Steering Wheel -E440- is the same for all variants.

The multifunction buttons -2- are attached to the guide ring -1-. The guide ring -1- is attached to the steering wheel and engaged. The multifunction buttons -2- have an extra retainer

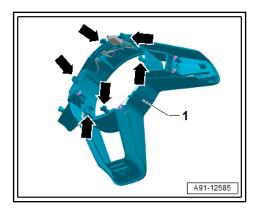


When removing, first make sure that after removing the bolts that the guide ring -1- can be loosened by hand approximately



5 mm. Then using the Trim Removal Wedge -3409- open the retainers -3- on the multifunction buttons -2-. Then the guide ring -1- is removed with the multifunction buttons -2-.

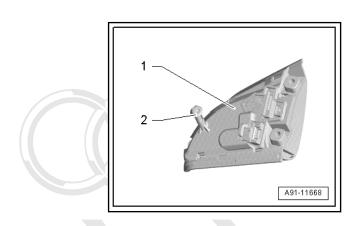
Guide Ring Retainers



Guide Ring

Arrows - catches

Multifunction Button Catches

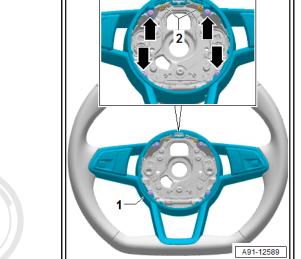


- 1 -Multifunction Button
- 2 -Retainer

Removing

- Turn off the ignition and all electrical equipment. Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability Remove the driver airbag. Refer to \Rightarrow Body Interior; Repect to the correctness of information in this document. Copyright by AUDI AG. Gr. 69; Driver Airbag; Overview - Driver Airbag.
- Draw sketches or take pictures of the wire routing in the steering wheel. This will ensure the original wire routing when installing.
- Remove the cable shoes -2- from the contacts.

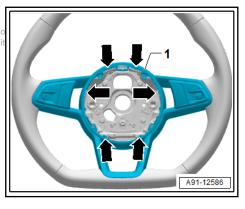




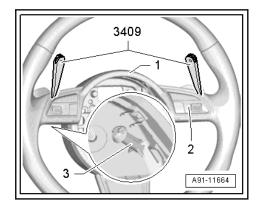


- Remove the bolts -arrows- for the guide ring -1-.
- Loosen the guide ring -1- with the multifunction buttons by hand -arrows- and remove it approximately 5 mm from the steering wheel.

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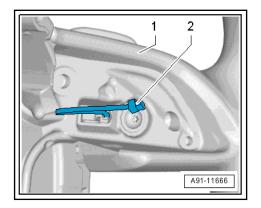


Release the multifunction buttons -2- with the Trim Removal Wedge - 3409- next to the catches -3-. Use the Trim Removal Wedge -3409- as shown.



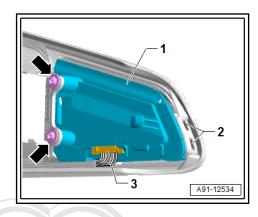
Carefully remove the guide ring with the multifunction buttons from the steering wheel -1-, at the same time pay attention to the connectors -2- to the tiptronic switch.





- Release and disconnect the connectors -2- from the multifunction buttons.
- Remove the guide ring with the multifunction buttons from the steering wheel -1-.

The multifunction buttons are attached to the guide ring.

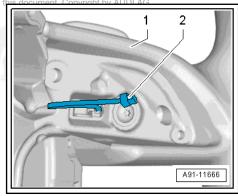


- Remove the bolts -arrows-.
- Remove the multifunction button -1- from the guide ring, at the same time pay attention to the tabs -2-.
- Disconnect and remove the connector -3- from the multifunction button -1-.

Installing

Install in the reverse order of removal while noting the following:

- Place the guide ring with the multifunction buttons installed on the steering wheel.
- Route the connection cable for the tiptronic switch -2- as
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- Route the remaining wires according the sketches/photos made during removal.
- Then check again for the correct wire routing in the steering wheel according to the sketches/photos made during remov-

Tightening Specifications

- Refer to ⇒ -8.2 Multifunction Steering Wheel", page 88
- 8.4 Tiptronic Downshift Button on Steering Wheel -E439-/Tiptronic Upshift Button on Steering Wheel -E438-, Removing and Installing



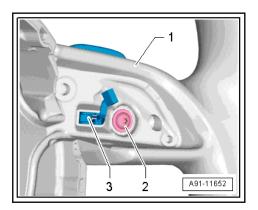
Note

Removing and installing the Tiptronic Downshift Button on Steering Wheel - E439-/ Tiptronic Upshift Button on Steering Wheel -E438- is the same for all variants.

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Removing

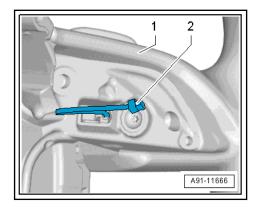
- Remove the guide ring with the multifunction buttons. Refer to ⇒ R8.3 ight Multifunction Buttons on Steering WheelE441/ Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92.
- Remove the bolt -2- on the steering wheel -1- and remove the Tiptronic switch -3- with the connecting cable toward the



Installing

Install in the reverse order of removal while noting the following:

Pay attention to the location of the connecting cable -2- to the multifunction button.



Tightening Specifications

- Refer to ⇒ -8.2 Multifunction Steering Wheel", page 88
- 8.5 Damping Adjustment Button -E387-/ Access/Start Authorization Button -E408- (Satellite Switch), Removing and Installing

The Damping Adjustment Button -E387-/Access/Start Authorization Button -E408- are located to the left and right on the guide ring. The Multifunction Steering Wheel Control Module -J453- is integrated in the Damping Adjustment Button -E387on the left side.

The removal and installation of the Damping Adjustment Button -E387- is described. Removing and installing the Access/Start Authorization Button -E408- is identical.



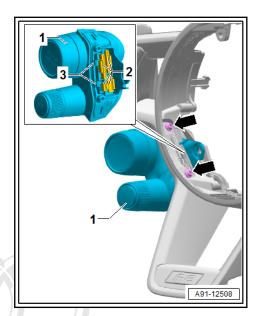
Note

If replacing the control module, select the "Replace control module" function for the corresponding control module on the ⇒ Vehicle diagnostic tester.

Removing

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- Remove the guide ring with the multifunction buttons and the by AUDI AG. AUDI AG does not guarantee or accept any liability ness of information in this document. Copyright by AUDI AG. Damping Adjustment Button -E387-/ Access/Start Authorization Button -E408-. Refer to <u>⇒</u> R8.3 ight Multifunction Buttons on Steering WheelE441/Left Multifunction Buttons on Steering WheelE440, Removing and Installing", page 92.
- Draw sketches or take pictures of the wire routing in the guide ring. This will ensure the original wire routing when installing.
- Remove the bolts -arrows-.



- Remove the Damping Adjustment Button -E387- -1- outward from the guide ring. Pay attention to the hooks -3- while
- Release and disconnect the connectors -2-.

Installing

Install in the reverse order of removal while noting the following:

Using the sketches/pictures made during removal, reroute the wiring.

Tightening Specifications

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Refer to ⇒ -8.2.2 Multifunction Steering Wheel, Only TT RS ", page 90



Connection for External Multimedia 9 **Devices**

⇒ -9.1 Connection for External Multimedia Devices", page 99

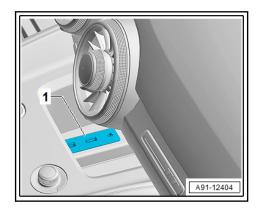
⇒ M9.2 ultimedia Device Connection, Removing and Installing", page 99

9.1 Overview - Connection for External **Multimedia Devices**

There are several versions of the connection for external multimedia devices interest and inte

- External Audio Source Connection -R199- (AUX IN jack and USB charging port), UE3
- USB Distributor -R293-, 2 full-size USB ports and AUX IN jack Audi music interface (AMI), UE7
- ◆ USB Distributor -R293-, 2 full-size USB ports and AUX IN jack Audi smartphone interface (ASI), Uİ2

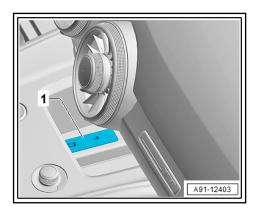
Component Location of Connection for External Multimedia Devices



The external multimedia device connection -1- is located in the storage compartment in the center console.

9.2 **External Multimedia Device Connec**tion, Removing and Installing

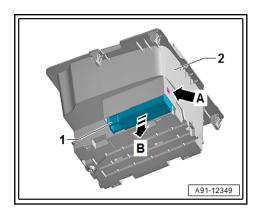
The external multimedia device connection -1- is located in the center console storage compartment.



Removing

- Turn off the ignition and all electrical equipment.

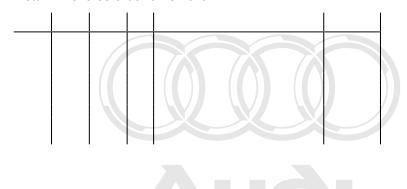
- Remove the center console storage compartment. Refer to ⇒ Body Interior; Rep. Gr. 68; Center Console; Overview -Center Console.
- Release the locking tab in direction of -arrow A- on both sides of the external multimedia device connection -1-.



Remove the external multimedia device connection -1- in direction of the -arrow B- from the storage compartment -2-.

Installing

Install in reverse order of removal.



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Cautions & Warnings

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described
 in this manual, we suggest you leave such repairs to an authorized Audi retailer or other
 qualified shop. We especially urge you to consult an authorized Audi retailer before beginning
 repairs on any vehicle that may still be covered wholly or in part by any of the extensive
 warranties issued by Audi.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system
 or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an
 approved fire extinguisher handy.
- Audi is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Audi retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the Audi Factory Approved Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the
 purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may
 crumble under continuous load. Never work under a vehicle that is supported solely by a jack.
 Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code
 before disconnecting the battery or removing the radio. If the wrong code is entered when the
 power is restored, the radio may lock up and become inoperable, even if the correct code is
 used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of
 injury to yourself and others if you are tired, upset or have taken medicine or any other
 substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace
 when you work near machine tools or running engines. If your hair, clothing, or jewelry were to
 get caught in the machinery, severe injury could result.

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Page 1 of 3

Cautions & Warnings

- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are
 designed to be used only once and are unreliable and may fail if used a second time. This
 includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the
 recommendations in this manual replace these fasteners with new parts where indicated,
 and any other time it is deemed necessary by inspection.
- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not
 create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing
 asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as
 asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand.
 Read all the instructions thoroughly, do not attempt shortcuts. Use tools that are appropriate to
 the work and use only replacement parts meeting Audi specifications. Makeshift tools, parts
 and procedures will not make good repairs.
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 Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or any liability beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these
 tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten
 fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping
 hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame.
 Excessive heat will increase system pressure and may cause the system to burst.

Cautions & Warnings

- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Audi Service technicians should test, disassemble or service the airbag system.
- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not
 exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute
 before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only
 be tested by trained Audi Service technicians using the Audi Factory Approved Scan Tool (ST)
 or an approved equivalent. The airbag unit must never be electrically tested while it is not
 installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire poses, in part or in whole, is not that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other ment. Copyright by AUDI AG. sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

I have read and I understand these Cautions and Warnings.